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01/31/03

Re: 09/992,966

**AU 2857**

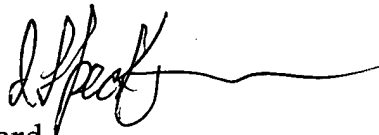
Examiner Wachsmann,

**CP4 8B04**

Please find attached first-pass prior-art search results from the patent and non-patent abstract and full-text databases. The results were based on claims and statements of technical problems and solutions. The company search for Liquid Spark, LLC is also attached. Tagged records might be worth your review as well as the rest of the references provided.

If you need further searching or have questions or comments, please let me know.

Thank you,

A handwritten signature in black ink, appearing to read 'I. Speckhard', followed by a long horizontal flourish.

Irina Speckhard  
STIC-EIC2800  
308-6559  
CP4-9C18

1/28/03 EIC 2800 85421 5255  
**SEARCH REQUEST FORM** Scientific and Technical Information Center - EIC2800  
 Rev. 8/27/01 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, CP4-9C18, 306-5429.

Date 1-28-03 Serial # 09/992,966 Priority Application Date March 9, 1998  
 Your Name H. H. Jackson Examiner # 7/225  
 AU 2877 Phone 305-9788 Room CP4-8804  
 In what format would you like your results? Paper is the default. PAPER DISK EMAIL

If submitting more than one search, please prioritize in order of need.

The EIC searcher normally will contact you before beginning a prior art search. If you would like to sit with a searcher for an interactive search, please notify one of the searchers.

Where have you searched so far on this case? 5 full hours from 1/28/03 to 1/29/03  
 Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: PLU search

What relevant art have you found so far? Please attach pertinent citations or Information Disclosure Statements.

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☒ Other \_\_\_\_\_  
 Secondary Refs ☒ Foreign Patents ☒  
 Teaching Refs ☒

What is the topic, such as the **novelty**, motivation, utility, or other specific facets defining the desired **focus** of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

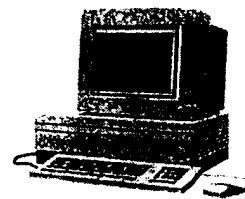
The invention compares athletic performance between persons by having a mobile device attached to each of the athletes, persons which gather data regarding each person's performance and then transmit or store that data to a central database or server. The data is then used to compare the athletic performance of the persons. Users can then review the performance comparison by accessing the database through the Internet.  
Some keywords: Internet, web, website, server, network, mobile server or server attached power or athlete, speed, airtime, position, GPS, energy, power, distance  
Also check please for any literature that deals with this invention type from a company named "Liquid Spout, LLC" in San Francisco, California

Staff Use Only	Type of Search	Vendors
Searcher: <u>J. P. KARP</u>	Structure (#) _____	STN _____
Searcher Phone: _____	Bibliographic <input checked="" type="checkbox"/>	Dialog <input checked="" type="checkbox"/>
Searcher Location: STIC-EIC2800, CP4-9C18	Litigation _____	Questel/Orbit _____
Date Searcher Picked Up: <u>1/30/03</u>	Fulltext <input checked="" type="checkbox"/>	Lexis-Nexis _____
Date Completed: <u>1/31/03</u>	Patent Family _____	WWW/Internet <input checked="" type="checkbox"/>
Searcher Prep/Rev Time: <u>60/120</u>	Other <input checked="" type="checkbox"/>	Other <u>company search</u>

# EIC2800

## Search Results

### Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search *or contact*:

Jeff Harrison, Team Leader, 306-5429

---

#### Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example:

➤ Relevant prior art *found*, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art *not found*:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Search results were not useful in determining patentability or understanding the invention.

Other Comments:

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Drop off completed forms in CP4-9C18, or send to Jeff Harrison, CP4-9C18.

30jan03 14:06:49 User267149 Session D555.1

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2003/Jan W3  
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\*File 8: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.  
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\*File 34: Alert feature enhanced for multiple files, duplicates removal, customized scheduling. See HELP ALERT.  
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\*File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.  
File 315:ChemEng & Biotec Abs 1970-2002/Dec  
(c) 2002 DECHEMA  
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200307  
(c) 2003 Thomson Derwent  
\*File 350: Alerts can now have images sent via all delivery methods. See HELP ALERT and HELP PRINT for more info.  
File 347:JAPIO Oct 1976-2002/Sep(Updated 030102)  
(c) 2003 JPO & JAPIO  
\*File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.  
File 344:Chinese Patents Abs Aug 1985-2002/Dec  
(c) 2003 European Patent Office  
File 371:French Patents 1961-2002/BOPI 200209  
(c) 2002 INPI. All rts. reserv.  
\*File 371: This file is not currently updating. The last update is 200209.

Set	Items	Description
S1	583555	(DROP(W)DISTANC???? OR RATE??? OR SPEED??? OR AIRTIM????? - OR AIR(W)TIM???? OR MOBIL???????) (3N) (DETECT? OR SENSE? OR SE- NSING OR ANALYZ? OR ANALYS? OR ESTIMAT? OR CALCULAT? OR MEASU- R? OR MONITOR?)
S2	281830	(SPEED? OR AIR()TIME OR AIRTIME OR DROP()DISTANC? OR POWER- ????? OR ENERG??? OR AGGRESSIVE???? OR VELOCIT???? OR POSITIO- N?) (3N) (SENS????? OR RECEIV?????)
S3	274663	(TRANSMIT? OR DOWNLOAD? OR DOWN(W)LOAD? OR GATHER?) (3N) (DA- TA OR DATUM OR INFORMAT?)
S4	2337257	INTERNET OR WEB OR WEBSITE?? OR SERVER?? OR NETWORK??? OR - WIRELESS????? OR WIRE()LESS????
S5	648975	DATABASE??? OR DATA()BASE????
S6	26051	(ATHLET???? OR SPORTSM?N OR SPORTS()M?N OR USER?? OR ATHLE- T???????) (3N)PERFORM????????
S7	28925	(WIRELESS OR WIRE()LESS OR MOBIL???????) (3N) (SENS???????? OR RECEIV????????)
S8	191027	GPS OR GLOBAL()POSITION?() (SATELLITE??? OR SYSTEM???)
S9	156068	ENERG?(3N)POWER?
S10	1117	(SKI OR SNOWBOARD? OR SNOW()BOARD? OR BIKE? OR WINDSURF? OR WIND()SURF? OR ROLLER()BLAD? OR SKAT?()BOARD? OR BOOT?? OR S- HOE?? OR SNEAKER??? OR KAYAK?????) (3N)PERFORM??????
S11	27172	S1 AND S2
S12	391	S11 AND S3
S13	77	S12 AND S4
S14	6	S13 AND S5
S15	6	RD (unique items)
S16	71	S13 NOT S14
S17	0	S16 AND S6
S18	9	S16 AND S7
S19	9	RD (unique items)
S20	62	S16 NOT S19
S21	13	S20 AND S8
S22	13	RD (unique items)
S23	0	S22 AND S10
S24	0	S22 AND S9
S25	13	S22
S26	49	S20 NOT S25
S27	0	S26 AND S10
S28	1	S26 AND S9
S29	48	S26 NOT S28
S30	0	S29 AND (SKI OR SNOWBOARD? OR SNOW()BOARD? OR BIKE? OR WIN- DSURF? OR WIND()SURF? OR ROLLER()BLAD? OR SKAT?()BOARD? OR BO- OT?? OR SHOE?? OR SNEAKER??? OR KAYAK?????)
S31	48	S29 AND (DROP(W)DISTANC???? OR RATE??? OR SPEED??? OR AIRT- IM????? OR AIR(W)TIM???? OR MOBIL???????)
S32	0	S31 AND (ATHLET???? OR SPORTSM?N OR SPORTS()M?N)
S33	48	RD S31 (unique items)
S34	509	(SKI OR SNOWBOARD? OR SNOW()BOARD? OR BIKE? OR WINDSURF? OR WIND()SURF? OR ROLLER()BLAD? OR SKAT?()BOARD? OR BOOT?? OR S- HOE?? OR SNEAKER??? OR KAYAK?????) (3N) (SENSOR? OR SENSING OR - TRANSMITTER???)
S35	0	S34 AND S8
S36	12	S34 AND S3
S37	11	RD (unique items)
S38	11	S37 NOT S15,S19,S22,S28

01/30/2003

14:34

09/992,966

15/3,AB/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014559391

WPI Acc No: 2002-380094/200241

Device and method for controlling overspeeding preventing in vehicle

Patent Assignee: HYUNDAI MOTOR CO LTD (HYUN-N)

Inventor: LEE J D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001111139	A	20011217	KR 200031278	A	20000608	200241 B

Priority Applications (No Type Date): KR 200031278 A 20000608

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2001111139	A	1	B60K-031/00	

Abstract (Basic): KR 2001111139 A

Abstract (Basic):

NOVELTY - Control device and method for preventing overspeeding of a vehicle are provided to install an overspeeding preventer by memorizing data of limited speed according to a road and to prevent overspeeding by **transmitting** overspeeding **data** of the vehicle into overspeeding control **server**.

DETAILED DESCRIPTION - A control device for preventing overspeeding of a vehicle comprises a ground **position** unit(10) **receiving** information of a present position in a road; a road changing signal unit(11) receiving the signal changing a road; a vehicle **speed sensing** unit(12) **detecting** the **speed** in the road; a control unit(20) outputting limited speed according to the road; a displaying and alarming unit(30) indicating the signal output form the control unit; a **wireless** terminal(40) transmitting the output signal into an overspeeding control **server**; a road calculator(21) calculating travelling road by receiving a road changing signal; a speed **database**(22) modifying limit **speed** by **receiving** the signal form the speed **database**; and a comparing device(23) comparing the **detected** vehicle **speed** with the limited speed of the speed **database**. Thereby, the control device for preventing overspeeding installs the overspeeding preventer by memorizing data of the limited speed according to the road to prevent overspeeding by **transmitting** the overspeeding **data** of the vehicle.

pp; 1 DwgNo 1/10

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15/3,AB/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014365819

WPI Acc No: 2002-186520/200224

Apparatus and method for tracking vehicles using **internet**

Patent Assignee: KIM Y S (KIMY-I)

Inventor: KIM Y S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001094474	A	20011101	KR 200016763	A	20000331	200224 B

Priority Applications (No Type Date): KR 200016763 A 20000331

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
KR 2001094474	A		1	G06F-017/00	

Abstract (Basic): KR 2001094474 A

Abstract (Basic):

NOVELTY - An apparatus and a method for tracking vehicles using the **Internet** are provided to track the vehicles passing a specific position by detecting codes of the vehicles.

DETAILED DESCRIPTION - A transmitter(11) transmits a code of vehicle and a receiver(21) receives the code of vehicle. A **speed measuring system(23) measures the speed** of vehicles. A radio **transmitter(30) transmits radio data** including the code of vehicle recognized by a plurality of **receivers(21)** and the **speed** of the vehicles **measured** by the **speed measuring system(23)**. A **server(40)** gathers the code of vehicle, position information, and the speed of vehicles from the radio transmitter(30) to make a **database**. The **server(40)** is assigned with an IP(**Internet Protocol**) so as to interface with the **Internet** working. The **server(40)** receives vehicle information(51) from each vehicle provider such as a code of vehicle, a starting place, a place of arrival, a starting time, and an estimated arrival time. The radio transmitter(30) transmits in real-time the code of vehicle recognized by the **receiver(21)**, the vehicle **speed** information **measured** in the **speed measuring system(23)**, and the **position** information from the **receiver(21)**.

pp; 1 DwgNo 1/10



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15/3,AB/3 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012840050

WPI Acc No: 2000-011882/200001

XRPX Acc No: N00-009143

Vehicle locating system for monitoring vehicle movements and  
**transmitting** travel-related **information** to vehicles using  
data **network** such as **internet**

Patent Assignee: VECTORLINK INC (VECT-N)

Inventor: FAN R C; MUFTI A A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5959577	A	19990928	US 97924042	A	19970828	200001 B

Priority Applications (No Type Date): US 97924042 A 19970828

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5959577	A	16	G01S-005/02	

Abstract (Basic): US 5959577 A

Abstract (Basic):

NOVELTY - A data processing station (18) computes **measured** position for **mobile** unit, when it receives **positional** information from GPS **receiver**. The measured **position** is stored in **database** where it is associated with area map. The measured position is marked and identified by marker on map which is then stored in data processing station and is made available for access by authorized mobile units.

DETAILED DESCRIPTION - The data processing station (18) connected to data **network** (27) has **database** including maps and is accessible by **wireless** communication. A mobile unit includes a global **positioning** system (GPS) **receiver** and a **wireless** transmitter. The GPS **receiver** receives **positional** information from GPS satellites (8) and is **transmitted** to data processing station (18) through data **network** (27). An INDEPENDENT CLAIM is also included for a vehicle locating method.

USE - For monitoring vehicle movements and **transmitting** travel-related **information** to vehicles using data **network** such as **internet** in aircraft, ships and for navigational purposes.

ADVANTAGE - The amount of **data** **transmitted** is reduced thereby increasing efficiency of system.

DESCRIPTION OF DRAWING(S) - The figure shows vehicle locating system.

GPS satellites (8)

Data processing station (18)

Data **network** (27)

pp; 16 DwgNo 1/13

15/3,AB/4 (Item 4 from file: 350)  
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012158181

WPI Acc No: 1998-575093/199849

XRPX Acc No: N98-448265

**Wireless** mobile communication system - selects communication channel for performing communication with mobile station based on stored service area and antenna identification code which is then indicated to base station

Patent Assignee: MITSUBISHI ELECTRIC CORP (MITQ )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10256962	A	19980925	JP 9756160	A	19970311	199849 B

Priority Applications (No Type Date): JP 9756160 A 19970311

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 10256962	A		8 H04B-007/02	

Abstract (Basic): JP 10256962 A

The system includes several base stations (1a-1c) which communicates with a mobile station (2). Each base station is divided into several communication service zones (5a-5c). Each service zone is further divided into micro service zones. The current position of a **mobile** station is **detected**. The detected current position **data** is **transmitted** to a controller (6). The communication channel in each micro service zone is identified by a specific code. An identification code for micro service area and communication channel code is stored in **database** (7).

The communication between specific base station and mobile station is carried out based on the **received positional** information. The communication channel for performing communication between the base and mobile station is selected based on the stored identification codes. The selected communication channel is indicated to the base station by a channel controller (3).

ADVANTAGE - Stabilises communication by eliminating call failure. Facilitates communication between mobile station and several base stations simultaneously by selecting proper communication channel.

Dwg.2/9

15/3,AB/5 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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010596646

WPI Acc No: 1996-093599/199610

XRPX Acc No: N96-078564

Mobile obstructional control method for train - involves **receiving**  
**wireless** signals containing **position** and speed information  
through ground controller from mobile parts using transmitting-receiving  
antenna

Patent Assignee: TOSHIBA KK (TOKE )

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8002416	A	19960109	JP 94140075	A	19940622	199610 B
JP 3210526	B2	20010917	JP 94140075	A	19940622	200156

Priority Applications (No Type Date): JP 94140075 A 19940622

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 8002416	A		24	B61L-023/14	
JP 3210526	B2		25	B60L-015/40	Previous Publ. patent JP 8002416

Abstract (Basic): JP 8002416 A

The method uses a ground controller (1) connected to mobile parts (10a-10c) and line vehicles (9a-9c). Coaxial cables (3a-3c) are laid along a main route (11) for **wireless** communication purposes. The periodic train position **information** is **transmitted** to a mobile control bureau (1a-1c) which is connected to the ground controller. The control bureau provides **wireless** signals to base stations (2a-2c) through the coaxial cables.

A transmitting-receiving antenna periodically receives the **wireless** signals containing position and speed information through the ground controller from the mobile parts. A security part judges whether the train position information provides real speed **data based** on the output of an overall **speed detector** and operates a **speed** pattern to achieve stoppage. An ATO device controls the speed of the train based on the speed pattern and controls the movement of any preceding train at regular intervals.

ADVANTAGE - Improves safety and reliability. Improves speed control and transportation power.

Dwg.1/20

15/3,AB/6 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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06362896  
NAVIGATION DEVICE

PUB. NO.: 11-304506 [JP 11304506 A]  
PUBLISHED: November 05, 1999 (19991105)  
INVENTOR(s): OTA TAKESHI  
IGARASHI CHIAKI  
APPLICANT(s): SONY CORP  
APPL. NO.: 10-113565 [JP 98113565]  
FILED: April 23, 1998 (19980423)

#### ABSTRACT

PROBLEM TO BE SOLVED: To reproduce additional information corresponding to the area by display/voice corresponding to a vehicle speed when a vehicle approaches a prescribed area.

SOLUTION: By the control of an arithmetic processing means 38a, area position information for indicating the **position** of the area **received** by a mobile radio terminal means 36 is stored in a storage means 27, and when the vehicle approaches the stored area for a prescribed distance, vehicle position and speed are obtained and **transmitted** and the additional **information** is received through the mobile radio terminal means 36 after the transmission and reproduced by a display means 32 or a speaker 21. Also, a transmission means 60 connected through a **network** 50 to a radio base station 40 is provided with the **database** 65 of the area position information and the additional information, a detection means 62a for **detecting** vehicle position and **speed** information from the mobile radio terminal means 36, and an information processing means 64 for retrieving the additional information corresponding to the vehicle position from the **data base**, selecting the additional information corresponding to the vehicle speed from the retrieved additional **information** and **transmitting** it.

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9/3,AB/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

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6597745 INSPEC Abstract Number: A2000-12-0710C-010, B2000-06-2575F-016

Title: A foundry fabricated surface-micromachined high-**speed**  
rotation **sensor** using **wireless** transmission

Author(s): Sun, W.; Tao Mei; Li, W.J.

Author Affiliation: Dept. of Mech. & Autom. Eng., Chinese Univ. of Hong Kong, Shatin, Hong Kong

Conference Title: Proceedings 1999 IEEE Hong Kong Electron Devices Meeting (Cat. No.99TH8458) p.72-5

Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 1999 Country of Publication: USA x+157 pp.

ISBN: 0 7803 5648 9 Material Identity Number: XX-2000-00679

U.S. Copyright Clearance Center Code: 0 7803 5648 9/99/\$10.00

Conference Title: Proceedings 1999 IEEE Hong Kong Electron Devices Meeting

Conference Sponsor: IEEE Electron Devices Soc. (Hong Kong Chapter); IEEE Electron Devices Soc.; Chinese Univ. Hong Kong

Conference Date: 26 June 1999 Conference Location: Shatin, Hong Kong

Language: English

Abstract: A novel MEMS surface-micromachined non-contact high-**speed** rotation **sensor** with total surface area under 4 mm<sup>2</sup> is now under development. Various versions of the sensor have been designed and were fabricated using the MCNC Multi-User MEMS Processes (MUMPs). This paper reports the initial characterization of the sensor and presents the results of **transmitting** the sensor **data** via a commercial **wireless** transmission chip. Initial results indicate that this piezoresistive sensor is capable of **measuring** rotation **speeds** from 1000 to 4000 rpm with linear output. The responsivity of the sensor is 3Hz/rpm in this region.

Subfile: A B

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19/3,AB/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
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6468182 INSPEC Abstract Number: B2000-02-7230M-056, C2000-02-3240P-007

Title: A MEMS high-**speed** rotation **measurement** system with MCNC  
fabricated motion and reference **sensors** using **wireless**  
transmission

Author(s): Sun, W.; Tao Mei; Ho, W.-T.; Li, W.J.

Author Affiliation: Dept. of Mech. & Autom. Eng., Chinese Univ. of Hong  
Kong, Shatin, Hong Kong

Conference Title: Proceedings. 1999 IEEE/SICE/RSJ. International  
Conference on Multisensor Fusion and Integration for Intelligent Systems.  
MFI'99 (Cat. No.99TH8480) p.226-31

Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 1999 Country of Publication: USA vii+286 pp.

ISBN: 0 7803 5801 5 Material Identity Number: XX-1999-02446

Conference Title: Proceedings of IEEE Conference on Multisensor Fusion  
and Integration for Intelligent Systems

Conference Sponsor: IEEE IES; RAS; SICE; RSJ

Conference Date: 15-18 Aug. 1999 Conference Location: Taipei, Taiwan

Language: English

Abstract: A novel MEMS surface-micromachined non-contact high-**speed**  
rotation **sensor** with total surface area under 4 mm<sup>2</sup>/ was  
developed using the MCNC multi-user MEMS processes. This paper reports the  
initial characterization of the sensor and presents the results of  
**transmitting** the sensor **data** via various commercial  
**wireless** transmission chips. Initial results indicate that this  
piezoresistive sensor is capable of **measuring** rotation **speeds**  
from 1000 to 4000 rpm with linear output. The responsivity of the sensor is  
3 Hz/rpm in this region.

Subfile: B C

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DIALOG(R)File 350:Derwent WPIX  
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014422959

WPI Acc No: 2002-243662/200230

XRFX Acc No: N02-188566

Multimedia information delivery system e.g. for providing guidance information to user, has **server** which generates guidance information based on **received positional** information of **mobile** terminal at preset time

Patent Assignee: HITACHI LTD (HITA ); ABE K (ABEK-I); HAMADA N (HAMA-I); KUZUNUKI S (KUZU-I); MATSUDA Y (MATS-I); NAKAMURA T (NAKA-I); YOKOTA T (YOKO-I)

Inventor: ABE K; HAMADA N; KUZUNUKI S; MATSUDA Y; NAKAMURA T; YOKOTA T

Number of Countries: 029 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1168715	A2	20020102	EP 2001114764	A	20010625	200230 B
US 20020026289	A1	20020228	US 2001879164	A	20010613	200230
CN 1331521	A	20020116	CN 2001124852	A	20010630	200230
JP 2002015215	A	20020118	JP 2000198124	A	20000630	200230

Priority Applications (No Type Date): JP 2000198124 A 20000630

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 1168715	A2	E	54	H04L-012/28	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

US 20020026289	A1		G06F-015/00
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CN 1331521	A		H04B-007/26
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JP 2002015215	A	32	G06F-017/60
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Abstract (Basic): EP 1168715 A2

Abstract (Basic):

NOVELTY - The **mobile** information terminals **detect** its own position at predetermined time intervals, by using the position detectors and **transmits** the detected positional information to a **server** (50). The **server** stores the **received positional** information and generates guidance information based on the positional information.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Information terminal device;

(b) **Server**;

(c) Information service provision method

USE - For delivering information to mobile information terminals such as personal digital assistants, multifunction portable radiophone sets for providing guidance information about landspots, event places, sight-seeing spots such as amusement parks or theme parks, art gallery, museum etc., to user.

ADVANTAGE - Efficiently recognizes location of user without requiring mutual communication between members of a group. Avoids the need for provision of any large storage unit at mobile information terminals, and hence weight and production cost of mobile information terminals are reduced.

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DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of  
information delivery **server**.

**Server** (50)

pp; 54 DwgNo 3/36



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19/3,AB/4 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014341381

WPI Acc No: 2002-162084/200221

System and method for **estimating** position of **mobile** station  
in **wireless network**

Patent Assignee: SAMSUNG ELECTRONICS CO LTD (SMSU )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001088305	A	20010926	KR 200087210	A	20001230	200221 B

Priority Applications (No Type Date): US 2000521542 A 20000307

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2001088305	A	1	H04B-007/26	

Abstract (Basic): KR 2001088305 A

Abstract (Basic):

NOVELTY - A system and a method for estimating a position of a mobile station in a **wireless network** is provided to accurately estimate the position of the mobile station in which an emergency call is generated and estimate the position of the mobile station without a high price multi-array antenna.

DETAILED DESCRIPTION - A timer(325) measures the first round trip delay related with a position estimation message transmitted from the first BTS(Base Transceiver Subsystem) to the first mobile station and a position estimation response message transmitted from the first mobile station to the first BTS. A power monitor(330) measures a power level of the **position** estimation response message **received** by the first BTS and determines that the **received power** level saturates a **receiver** related with the first BTS. A **data** processor(305) **transmits** a power control message from the first BTS to the first mobile station, increases the transmission power level of the position estimation response message in the first **mobile** station, saturates the **receiver** by the increased transmission power level, and calculates the first distance between the first mobile station and the first BTS from the first round trip delay.

pp; 1 DwgNo 1/10

19/3,AB/5 (Item 3 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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014080827

WPI Acc No: 2001-565041/200163

Related WPI Acc No: 2001-521816

XRPX Acc No: N01-420716

Packet data optimizing method for spread spectrum based **wireless** communication, **transmits data** and power control information from mobile station to base station, on receiving collision detection preamble

Patent Assignee: GOLDEN BRIDGE TECHNOLOGY INC (GOLD-N)

Inventor: KANTERAKIS E; PARSA K

Number of Countries: 024 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200139416	A1	20010531	WO 2000US32158	A	20001128	200163 B
US 6480525	B1	20021112	US 99167852	A	19991129	200278
			US 2000722688	A	20001128	

Priority Applications (No Type Date): US 99167852 P 19991129; US 2000722688 A 20001128

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200139416	A1	E	44	H04K-001/00	

Designated States (National): CN JP KR

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GR IE IT

LU MC NL PT SE TR

US 6480525	B1	H04K-001/00	Provisional application US 99167852
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Abstract (Basic): WO 200139416 A1

Abstract (Basic):

NOVELTY - Access preamble signatures sent from mobile station (MS) (15) over selected common packet channel are **received** at detectable **power** level, by spread spectrum receivers of base station (BS) (13). Collision detection signals are communicated between MS and BS on receiving response signal from BS to recognize common packet channels. Data and power control information is sent relevant to recognized channel based on detection signal.

DETAILED DESCRIPTION - An access preamble signature is transmitted from the mobile station (MS) transmitters to a base station spread spectrum receivers over selected common packet channel (CPCH). On receiving the access preamble signature at detectable power levels, response signal is transmitted to **mobile** station. Collision **detection** preamble signatures are transmitted by mobile station transmitters to base station receiver relevant to the response. The base station transmitters inturn transmit collision detection preamble signature over identified common packet channel to **mobile** station **receiver**. INDEPENDENT CLAIMS are also included for the following:

- (a) Code division multiple access **wireless** base station;
- (b) Baseband processor used in code division multiple access **wireless** base station;
- (c) Code division multiple access **wireless** mobile station;
- (d) Baseband processor used in CDMA **wireless** remote station

USE - For spread spectrum based **wireless** communication system  
e.g. digital sense multiple access (DSMA)/code division multiple access  
(CDMA) system.

ADVANTAGE - The uplink transmission is stopped during absence of  
downlink transmission, so that channel between mobile stations is not  
used during data collision. Improves throughput, by distributing  
available channels between mobile and base stations.

DESCRIPTION OF DRAWING(S) - The figure shows the functional block  
diagram of code division multiple access **network**.

Base station (13)

Mobile station (15)

pp; 44 DwgNo 4/11

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19/3,AB/6 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012528171

WPI Acc No: 1999-334277/199928

XRPX Acc No: N99-251907

Vehicle mounted mobile communication system to perform data communication between mobile station and base station - estimates position of moving body and then transmits to base station due to which communication information stored in memory is transmitted to mobile station by transmitter

Patent Assignee: NISSAN MOTOR CO LTD (NSMO )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11122658	A	19990430	JP 97279250	A	19971013	199928 B

Priority Applications (No Type Date): JP 97279250 A 19971013

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 11122658	A	16	H04Q-007/34	

Abstract (Basic): JP 11122658 A

NOVELTY - When estimated positional **information** is **transmitted** to a base station, communication information stored in the memory is read and transmitted to **receiver** of a **mobile** station. Based on information **received** at **mobile** station, the moving body reaches the estimated position and communication is controlled by a controller. DETAILED DESCRIPTION - A base station (3) transmits a demand signal to a mobile station (5) which in response transmits the estimation position of moving body to the base station. On **receiving** the **positional** information, the communication information which are stored in a memory is transmitted to the mobile station based on which the moving body reaches the **estimation** position. The **mobile** station has a position estimation unit which estimates the position of the moving body.

USE - To perform data communication between mobile station and base station.

ADVANTAGE - Prevents communication error which originates due to deterioration of circuit quality of **wireless** area. DESCRIPTION OF

DRAWING(S) - The figure shows the system assembly of the mobile communication system. (3) Base station; (5) Mobile station.

Dwg.1/14

19/3,AB/7 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011919975

WPI Acc No: 1998-336885/199830

XRFX Acc No: N98-263097

Search system for person escaped from hospital, old age home - has differential positioning unit which measures error of positioning information and **measures** relative position of **mobile** unit and base station with high precision

Patent Assignee: SOTOYAMA M (SOTO-I)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10122895	A	19980515	JP 9726200	A	19970124	199830 B
JP 3026170	B2	20000327	JP 9726200	A	19970124	200020

Priority Applications (No Type Date): JP 96266518 A 19960829

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 10122895	A		12	G01C-021/00	
JP 3026170	B2		11	G01C-021/00	Previous Publ. patent JP 10122895

Abstract (Basic): JP 10122895 A

The system includes a base station (2) which is connected to a mobile unit (1) through a **wireless** communication circuit. A positioning apparatus (12) in the **mobile** unit **measures** the positioning information (P1) which shows the current position of the mobile unit based on electric wave from base station. The positioning **information** is **transmitted** to a **wireless** response apparatus (11) of the mobile unit. The **wireless** response apparatus **transmits** the positioning **information** to the base station.

The **wireless** telephone transceiver (21) **receives** the **positioning** information on the mobile unit. The current position of the base station is measured by a positioning apparatus (24) of the base station. The base station calculates the positioning information on the mobile unit for the positioning information on the base station based on their difference. The relative position of the mobile unit for the base station is displayed on a map image display (22). A differential positioning unit measures the error of both the positioning information and measures the relative position of the mobile unit and the base station with high precision of less than that of errors.

USE - For searching thieves.

ADVANTAGE - Enables position specification precisely. Performs searching, irrespective of distance.

Dwg.1/3

19/3,AB/8 (Item 6 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

010898678

WPI Acc No: 1996-395629/199640

XRPX Acc No: N96-333437

Mobile radio communication system performing mobile unit position registration - has storage device on **network** side for storing current and previous position information and in **mobile** unit for storing **received position information transmitted** by **network** in response to request signal

Patent Assignee: NEC CORP (NIDE )

Inventor: NAGATA K

Number of Countries: 003 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2298766	A	19960911	GB 964936	A	19960308	199640 B
JP 8317460	A	19961129	JP 9649864	A	19960307	199707
US 5787359	A	19980728	US 96613691	A	19960311	199837
GB 2298766	B	19990707	GB 964936	A	19960308	199929

Priority Applications (No Type Date): JP 9550701 A 19950310

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2298766	A		42	H04Q-007/38	
JP 8317460	A		13	H04Q-007/34	
US 5787359	A			H04B-007/00	
GB 2298766	B			H04Q-007/38	

Abstract (Basic): GB 2298766 A

The mobile communication system includes a storage device on the **network** side for storing registered position information on the current and previous positions of a mobile unit. A transmission device transmits the stored registered position information in response to a position information request from a mobile unit. A mobile unit also includes a position information storage device and a transmitter for sending a position information request signal to the **network**.

Pref. the **network** is equipped with a changeover device for changing the base station in connection with a mobile unit and the current position of the unit is stored when changeover is effected. The mobile unit can include a display for indicating the position information.

ADVANTAGE - Allows **mobile** unit to **detect** its own current and previous position information.

Dwg.3/12

19/3,AB/9 (Item 7 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

004506036

WPI Acc No: 1986-009380/198602

XRPX Acc No: N86-006732

Mobile telephone subscriber location system - has mobile exchanges  
connected to common broadcasting centre for receiving location requests  
and providing paging

Patent Assignee: ALCATEL NV (ALCA-N); INT STANDARD ELECTRIC CORP (INTT )

Inventor: BINI A

Number of Countries: 006 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 167458	A	19860108	EP 85401354	A	19850704	198602 B
JP 61026338	A	19860205	JP 85144861	A	19850703	198612
ES 8704054	A	19870516	ES 544902	A	19850705	198725
US 4700374	A	19871013	US 85747510	A	19850621	198743

Priority Applications (No Type Date): IT 8421774 A 19840706

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 167458	A	E	23		
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Designated States (Regional): DE FR GB

Abstract (Basic): EP 167458 A

A series of mobile telephone exchanges (CMB,CMC) are each connected to a telephone **network**, controlling its own cell-structured area. All the mobile exchanges are connected either directly or indirectly via a data transmission **network** with at least one common broadcasting centre. Each of the exchanges **monitors** the presence of **mobile** subscribers within its own area.

The mobile exchanges send location requests to the common broadcasting centre for mobile subscribers not present in its own area, and **receive** information on the **position** of subscribers outside the area to which they belong. The centre receives from each of the exchanges location requests, and pages messages to all the mobile exchanges of the system.

Abstract (Equivalent): US 4700374 A

A number of mobile telephone exchanges, each of which controls an area and is in a position to **monitor** the presence of **mobile** telephone units within its own area are connected with a national centre. The national centre receives requests for the location of mobile telephone units from each exchange and **transmits** location **information** via satellite to all of the exchanges within the system.

The mobile telephone exchange in area of which the paged mobile telephone unit is located sends location information to the national centre or directly to the originating mobile telephone exchange. The location information contains data pertaining to the identity of the exchange and the mobile telephone. The **data** is **transmitted** by the national centre to the mobile telephone exchange which issued the request enabling the exchange to make the connection.

ADVANTAGE - No need to advise other mobile exchanges each time vehicle enters new area without making or **receiving** call.

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**Mobile** telephone service may be extended to other countries.



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25/3,AB/1 (Item 1 from file: 99)  
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs  
(c) 2003 The HW Wilson Co. All rts. reserv.

2287139 H.W. WILSON RECORD NUMBER: BAST00074990  
Oakland maps a clean streets strategy  
American City & County v. 115 no15 (Nov. 2000) p. 46  
DOCUMENT TYPE: Feature Article ISSN: 0149-337X

ABSTRACT: Part of a special section on the use of GIS by local governments. The Public Works Agency in Oakland, California, has started a program that involves the installation of **GPS** receivers in some street sweepers and registration with a **web**-based fleet management service to monitor the vehicles. The **receivers calculate** the vehicles' **position, speed,** and direction, and modems **transmit** the vehicle's **data** to a **web** site that displays the information on city maps. The program has improved the efficiency of the public-works crew and has reduced customer complaints.

25/3,AB/2 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014968620

WPI Acc No: 2003-029134/200302

XRPX Acc No: N03-022972

Virtual odometer system for vehicle such as trucks, converts speed signals into odometer **data** which are then **transmitted** to monitoring location at specified time intervals

Patent Assignee: NAT SYSTEMS & RES CO (NASY-N)

Inventor: FARMER J A; MCDERMOTT P J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020133271	A1	20020919	US 2001804915	A	20010313	200302 B

Priority Applications (No Type Date): US 2001804915 A 20010313

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20020133271	A1		9 G06F-017/00	

Abstract (Basic): US 20020133271 A1

Abstract (Basic):

NOVELTY - A processor (14) converts speed signals **received** from a **global positioning system (GPS) receiver** (12) into odometer data. A **wireless** communication system (18) **transmits** the odometer **data** received from the processor through a communication interface (16), to a monitoring location (20) at specified time intervals.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for method of operating virtual odometer device.

USE - For remote **monitoring** the **speed** of vehicles such as fleet vehicles, trucks, etc.

ADVANTAGE - By converting the speed signals into odometer data before transmission to the remote location, mileage information is reliably and more accurately transmitted without increasing the processor and memory resources.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the distance measuring system.

**Global positioning system receiver** (12)

Processor (14)

Communication interface (16)

**Wireless** communication system (18)

Monitoring location (20)

pp; 9 DwgNo 1/5

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25/3,AB/3 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014903278

WPI Acc No: 2002-723984/200278

XRPX Acc No: N02-570829

Satellite positioning system has computation means for selecting an appropriate fixed station among the fixed stations in accordance with the **position** measurement data **received** from the first interface

Patent Assignee: MITSUI BUSSAN KK (MITA ); TOPCON CORP (TOKI ); MITSUI & CO LTD (MITA )

Inventor: KOBAYASHI Y; MIYASAKA K; MORI M; SAKAKI K; TAKASU K

Number of Countries: 024 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200284321	A1	20021024	WO 2002JP3580	A	20020410	200278 B
JP 2002311124	A	20021023	JP 2001112863	A	20010411	200302

Priority Applications (No Type Date): JP 2001112863 A 20010411

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200284321	A1	J	22	G01S-005/14	
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Designated States (National): CN KR SG US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE TR

JP 2002311124	A		9	G01S-005/14	
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Abstract (Basic): WO 200284321 A1

Abstract (Basic):

NOVELTY - A **GPS** positioning system includes at least one **mobile** station for **measuring** the **position** coordinates by **receiving** a radio wave from a satellite, a plurality of fixed stations having predetermined **position** coordinates and **receiving** a radio wave from the satellite, and computation means which is connected by communication to the at least one mobile station and to the fixed stations, selects an appropriate fixed station in accordance with position measurement **data transmitted** from the at least one mobile station, and **transmits** reference position measurement **data** on the selected fixed station to the mobile station.

DETAILED DESCRIPTION - A **GPS** position measurement data **server** includes a first communication interface for receiving a radio wave from the satellite so as to **receive position measurement** data from a **mobile** station whose position coordinates can be measured, a second communication interface for **receiving position** measurement data from the fixed stations whose position coordinates are known and which receives a radio wave from the satellite, and computation means for selecting an appropriate fixed station among the fixed stations in accordance with the **position** measurement data **received** from the first interface.

pp; 22 DwgNo 3/7

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25/3,AB/4 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014859695

WPI Acc No: 2002-680401/200273

Method for **transmitting** traffic information

Patent Assignee: SK CORP (SKSK-N)

Inventor: CHO S J; JANG S M; KIM D S; LEE H S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2002036560	A	20020516	KR 200066799	A	20001110	200273 B

Priority Applications (No Type, Date): KR 200066799 A 20001110

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2002036560	A	1	G08G-001/0968	

Abstract (Basic): KR 2002036560 A

Abstract (Basic):

NOVELTY - A method for **transmitting** traffic information is provided to calculate a sectional passing time from position data and speed data of a section detection vehicle by using a **GPS**(**Global Positioning System**) and a clover algorithm.

DETAILED DESCRIPTION - A **GPS** terminal(16) is installed in a vehicle for detecting a section detection vehicle(14). The **GPS** terminal(16) **receives position** data and **speed** data of the section detection vehicle(14) from four or more **GPS** satellites(12). The position data and the **speed** data are **calculated** by loading a clover algorithm(50) in the **GPS** terminal(16) and a sectional passing time is obtained thereby. A transmission period is reduced by processing the collected data. The **GPS** terminal(16) changes the transmission period and the changed transmission period through a **wireless** communication **network**(20). Traffic **data** are **transmitted** to a traffic **information** center(40) through a **wireless** communication exchange(30).

pp; 1 DwgNo 1/10

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25/3,AB/5 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014817120

WPI Acc No: 2002-637826/200269

XRPX Acc No: N02-503907

**Wireless** position location system determines position of mobile station, based on DGPS information received from several satellites and correction information received from base station over GPRS

Patent Assignee: LUCENT TECHNOLOGIES INC (LUCE )

Inventor: CHAKRABARTI S; MISHRA A

Number of Countries: 027 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1215508	A1	20020619	EP 2000311309	A	20001218	200269 B
CA 2327719	A1	20020606	CA 2327719	A	20001206	200269 N

Priority Applications (No Type Date): EP 2000311309 A 20001218; CA 2327719 A 20001206

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 1215508	A1	E	13	G01S-005/14	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR

CA 2327719	A1	E		H04Q-007/36	
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Abstract (Basic): EP 1215508 A1

Abstract (Basic):

NOVELTY - A base station (BS) (120) located at a known location, **transmits** correction **information** over the general packet radio services (GPRS). A mobile station (MS) (102) determines its position based on the differential **global positioning system** (DGPS) information **received** from several satellites and correction information received over the GPRS.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for **mobile** transceiver location **detection** method.

USE - **Wireless** position location system for **detecting** location of **mobile** station for use in applications such as autonomous position location and intelligent vehicle navigation.

ADVANTAGE - The GPRS provides an improved and highly efficient transport mechanism for **transmitting** correction **information** from BS to MS. The **GPS** determines the position of the mobile station accurately.

DESCRIPTION OF DRAWING(S) - The figure shows a graphical representation of **wireless** position location system.

Mobile station (102)

Base station (120)

pp; 13 DwgNo 1/4

25/3,AB/6 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2003 Thomson Derwent. All rts. reserv.

014160583

WPI Acc No: 2001-644811/200174

XRPX Acc No: N01-482799

Mobile telephone terminal **transmits** present position  
**information** acquired by **GPS** antenna, through **internet**  
to acquire detailed information

Patent Assignee: NEC CORP (NIDE )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001264101	A	20010926	JP 200080236	A	20000322	200174 B

Priority Applications (No Type Date): JP 200080236 A 20000322

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2001264101	A		6 G01C-021/00	

Abstract (Basic): JP 2001264101 A

Abstract (Basic):

NOVELTY - The **mobile** terminal has a **detector** (2) which  
acquires present position information using a **GPS** antenna.  
Acquired **information** are **transmitted** through **internet**  
by mobile terminal antenna (5) for searching the **internet**.  
**Internet** information analysis unit (6) acquires searched detailed  
information from **internet** through the mobile terminal antenna.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for  
position information acquisition method.

USE - Mobile telephone terminal with **global positioning**  
**system** (**GPS**) **receiver**, for acquiring various  
information about present position of mobile user through  
**internet**.

ADVANTAGE - User can acquire required information about the present  
position of mobile user automatically through **internet**.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of  
mobile telephone terminal with **GPS** function. (Drawing includes  
non-English language text).

Detector (2)

Mobile terminal antenna (5)

**Internet** information analysis unit (6)

pp; 6 DwgNo 1/4

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09/992,966

25/3,AB/7 (Item 6 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014027394

WPI Acc No: 2001-511608/200156

Method of controlling remotely located farming machinery and device  
thereof

Patent Assignee: RURAL DEV ADMINISTRATION (RURA-N)

Inventor: HWANG S J; JUNG I G; JUNG S O; KIM S C; PARK U P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001017740	A	20010305	KR 9933405	A	19990813	200156 B

Priority Applications (No Type Date): KR 9933405 A 19990813

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2001017740	A	1	G05D-001/00	

Abstract (Basic): KR 2001017740 A

Abstract (Basic):

NOVELTY - A method of controlling a remotely located framing machine with a hybrid positioning system combining a **global positioning system(GPS)** and a dead-reckoning(DR) and the device thereof are provided to position a remotely located farming machine and ,using the data of the machine's position and operation, order the machine specific operations remotely.

DETAILED DESCRIPTION - In a controller remotely controlling a farming machine, a step(S100) turns on the controller. (S110) initializes the variable storing the location of the machine. (S120) provides a certain delay time to stabilize a **GPS sensor**, a **zyro sensor** and a **speed sensor** after these **sensors** are turned on. (S130) **gathers** the data of location, azimuth angle and **speed detected** by these **sensors** respectively. (S140) analyzes the location data from the **GPS** sensor and verifies if the location information calculated with the data of angle and speed comes within an allowable error range. (S150) compensates the azimuth angle data of the zyro sensor with the azimuth angle calculated with the data by the **GPS** sensor. (S160) renews the location of the machine with the current data by the **GPS** sensor. (S170) analyzes the movement information consisting of the **speed sensed** by the **speed sensor**, the direction by the zyro sensor and the trajectory by the GDS sensor. (S180) sends the analyzed result to the control center through the controller or **wireless** transmitting device of the machine. (190) checks if there is more operation to do. (S190) ends the entire operation.

pp; 1 DwgNo 1/10

38/3,AB/9 (Item 6 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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010134050

WPI Acc No: 1995-035301/199505

XRFX Acc No: N95-027883

Athletic footwear for monitoring physical activity - comprises **shoe**  
contg. microprocessor, pressure **sensors**, memory and inductive  
coupling to **transmit data** to computer for analysis

Patent Assignee: WOOD T L (WOOD-I)

Inventor: WOOD T L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5373651	A	19941220	US 9357044	A	19930503	199505 B

Priority Applications (No Type Date): US 9357044 A 19930503

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 5373651	A		11 A43B-005/00	

Abstract (Basic): US 5373651 A

The system for collecting data from an athletic shoe comprises an activity log computer and a mat including at least one inductive interface linked to the activity log computer. An athletic **shoe** includes pressure **sensors**, a microprocessor, a memory and an inductive coupling. The microprocessor is adapted to receive from the pressure sensors data related to the force exerted upon the athletic shoe, store the received data in the memory and **transmit** the stored **data** to the activity computer via the inductive interface and inductive coupling.

The microprocessor is further adapted to receive and respond to information from the activity computer via the inductive interface and inductive coupling. A reset unit upon the exterior of the athletic shoe is adapted to clear any data stored within the memory.

ADVANTAGE - Accurate recording of exercise session by incorporated data transmission facility.

Dwg.1b/5



38/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6282455 INSPEC Abstract Number: B1999-08-7520E-006, C1999-08-3385C-003  
<Title: Wireless in-shoe force system [for motor prosthesis]  
Author(s): Lawrence, T.L.; Schmidt, R.N.  
Author Affiliation: Cleveland Med. Devices Inc., OH, USA  
Conference Title: Proceedings of the 19th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. 'Magnificent Milestones and Emerging Opportunities in Medical Engineering' (Cat. No.97CH36136) Part vol.5 p.2238-41 vol.5  
Publisher: IEEE, Piscataway, NJ, USA  
Publication Date: 1997 Country of Publication: USA 6 vol. ix+2819 pp.  
ISBN: 0 7803 4262 3 Material Identity Number: XX-1999-00662  
U.S. Copyright Clearance Center Code: 0 7803 4262 3/97/\$10.00  
Conference Title: Proceedings of the 19th Annual International Conference of the IEEE Engineering in Medicine and Biology Society. 'Magnificent Milestones and Emerging Opportunities in Medical Engineering'  
Conference Sponsor: IEEE  
Conference Date: 30 Oct.-2 Nov. 1997 Conference Location: Chicago, IL, USA  
Language: English  
Abstract: In this paper we present a Wireless In-shoe Force System (WIFS) to acquire, process, and **transmit** foot-floor force **information** which has been proven feasible for use with normal and paraplegic subjects. The WIFS is a portable system, intended for ambulatory use in a variety of locations (rather than in a laboratory setting). It measures times of foot contact occurrence, the approximate weight on each foot, and the center of pressure (COP) on each foot (as a function of time). This was done using a set of thick-film force sensors (for each foot), mounted in multi-layer shoe insoles (fitted to each foot and shoe, and worn inside the shoe). Information obtained by these insoles is transmitted (broadcast) from small, battery powered **transmitters** mounted on the **shoe** to a receiver. The system operates in the 902-928 MHz carrier frequency which allows data transmission rates of up to 50 Kbaud over a range of up to 500 meters. We proved that four force sensors, arranged under the supporting bones of the foot and mounted inside the shoe, obtained accurate COP information which was telemetered to the receiver.  
Subfile: B C  
Copyright 1999, IEE

38/3,AB/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

01551161 INSPEC Abstract Number: A80072372, B80037278, C80023471  
Title: Development of sensory feedback system for the lower  
prosthesis-about structure of the device  
Author(s): Hirokawa, S.; Takemoto, N.; Kato, K.  
Author Affiliation: Dept. of Appl. Phys., School of Engng., Osaka Univ.,  
Suita, Osaka, Japan  
Journal: Japanese Journal of Medical Electronics and Biological  
Engineering vol.17, no.6 p.415-20  
Publication Date: Oct. 1979 Country of Publication: Japan  
CODEN: IYSEAK ISSN: 0021-3292  
Language: Japanese  
Abstract: To make the presently available lower prosthesis more  
physiological and to further improve the adaptive capability of prosthetic  
gait, some sort of sensory feedback system must be supplemented to it. The  
authors have developed a sensory feedback system which **transmits**  
**information** received by the **sensors** fixed at the **shoe**  
sole and the knee part of the above knee prosthesis to the stump by means  
of electrical stimulation.  
Subfile: A B C

38/3,AB/3 (Item 1 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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04893271

E.I. No: EIP97123959576

Title: Expressive footwear for computer-augmented dance performance

Author: Paradiso, Joseph A.; Hu, Eric

Corporate Source: MIT Media Lab, Cambridge, MA, USA

Conference Title: Proceedings of the 1997 1st International Symposium on Wearable Computers

Conference Location: Cambridge, MA, USA Conference Date: 19971013-19971014

E.I. Conference No.: 47504

Source: International Symposium on Wearable Computers, Digest of Papers 1997. IEEE Comp Soc, Los Alamitos, CA, USA, 97TB100199. p 165-166

Publication Year: 1997

CODEN: 002736

Language: English

Abstract: A sensor system is described for instrumenting a pair of dancing shoes in order to capture many expressive degrees of freedom and use them to drive music synthesizers and computer graphics in a real-time performance. Dynamic pressure is measured at three points in the shoe sole, as are the bend of the sole, pitch and yaw shoe angles, and translational shoe positions. Data will be transmit across a 19.2 kbaud wireless ink, enabling updates at 10 msec intervals. (Author abstract) 11 Refs.

38/3,AB/4 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014734387

WPI Acc No: 2002-555091/200259

Internet exercise management system using **shoes** having **sensor**  
capable of measuring quantity of motion

Patent Assignee: NANUX INC (NANU-N)

Inventor: OH S G; WOO Y H

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2002014005	A	20020225	KR 200046759	A	20000812	200259 B

Priority Applications (No Type Date): KR 200046759 A 20000812

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2002014005	A	1	G06F-019/00	

Abstract (Basic): KR 2002014005 A

Abstract (Basic):

NOVELTY - An Internet exercise management system is provided to promote health of a user by enabling the user to continuously manage the user's exercise, and by measuring and managing a quantity of motion through the shoes.

DETAILED DESCRIPTION - Shoes(10) are equipped with sensors capable of measuring a quantity of motion. In addition, the shoes(10) transmits signals generated from the sensors through a wireless signal module. The first terminal(30) receives the signal transmitted from the wireless signal module. In addition, the first terminal(30) displays exercise **data** and **transmits** the **data** to the outside. The first terminal(30) receives the signal transmitted from the wireless signal module and transmits the signal to the second terminal(40). A web server(50) receives a connection request from the second terminal(40) and stores the exercise data inputted through the second terminal(40) in a motion quantity database(70). In case that the user inputs personal information, the information is stored in a member database(60). A motion quantity calculation module(80) provides statistical information based on the exercise information stored in the motion quantity database(70) to the second terminal(40).

pp; 1 DwgNo 1/10

38/3,AB/5 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013822914

WPI Acc No: 2001-307126/200132

XRPX Acc No: N01-219711

Virtual intelligence shoe with podiatric analysis system, has electrical module which receives and stores primary information of feet biomechanics and output signals of sensor mat

Patent Assignee: TRUONG V H G (TRUO-I)

Inventor: TRUONG V H G

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6195921	B1	20010306	US 99406523	A	19990928	200132 B

Priority Applications (No Type Date): US 99406523 A 19990928

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6195921	B1	19	A43B-023/00	

Abstract (Basic): US 6195921 B1

Abstract (Basic):

NOVELTY - Electrical module disposed in mechanical air package (80) receives and stores primary information of feet biomechanics and **shoe** temperature **sensor** signals from mat (16). The mat between mid-sole layers (14,18) generates signals based on pressure exerted by feet. **Data** acquisition **transmitting** circuit computes frequency signal modulated by IR light transmitting circuit to obtain variable values.

DETAILED DESCRIPTION - The shoe has a compartment for housing battery. The infrared light is transmitted or received through the transparent or semitransparent window formed on cavity space of outsole. The mechanical air package is filled with or other shock absorption materials. The flexible sensor mat generates voltage signals based on amount of pressure exerted by feet. The mechanical air package and **data** acquisition **transmitting** circuit are dispersed in cavity space.

USE - Virtual intelligence shoe with podiatric analysis system for patients suffering from diabetic and neuromuscular diseases.

ADVANTAGE - As sensor regions have intricate pattern distribution, the shoe fits soles of all foot sizes and is wrinkle free at critical biomechanics of loading areas during full-weight bearing activities enabling individual foot information to be obtained accurately. Determines norm and abnormal external biomechanics pressure of human foot during static and dynamic activities. Provides accessing of website services for diagnostic purposes and comprehensive treatment for particular foot modalities. Enhances the possibility for clinicians to diagnosis and treatment through network services. Constantly monitors patients suffering from diabetic and neuromuscular diseases as they have unpredictable stages of bone degeneration. Provides alarm to clinicians to implement appropriate treatment protocol for the patient.

DESCRIPTION OF DRAWING(S) - The figure shows the schematic exploded view of virtual intelligence shoe.

Midsole layers (14,18)

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Sensor mat (16)  
Mechanical air package (80)  
pp; 19 DwgNo 4/14

EIC2800

Irina Speckhard

308-6559

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25/3,AB/8 (Item 7 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013915585

WPI Acc No: 2001-399798/200143

Related WPI Acc No: 2000-247791

XRPX Acc No: N01-294713

Method of locating stolen goods by **detecting** data from **mobile**  
radio **network** and **transmitting position data** to  
**receiver**

Patent Assignee: WEEGEN J (WEEG-I)

Inventor: WEEGEN J

Number of Countries: 026 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1098205	A2	20010509	EP 2000124078	A	20001106	200143 B
DE 20022713	U1	20020523	DE 2000U2022713	U	20001106	200242
			EP 2000124078	A	20001106	

Priority Applications (No Type Date): DE 2000U2008009 U 20000505; DE  
99U2019554 U 19991106

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1098205	A2	G	6	G01S-005/02	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					
DE 20022713	U1			G08B-021/18	Application no. EP 2000124078

Abstract (Basic): EP 1098205 A2

Abstract (Basic):

NOVELTY - A locating module is provided in the goods, which determines the instantaneous position of the stolen goods and transmits it to a corresponding **receiver**. The **position** of the locating module is determined by **detecting** data from a **mobile radio network** and by **transmitting** the obtained position **data** to a suitable receiver. A voice call may be established to an official call centre of the mobile radio operator. An SMS message may be transmitted that contains the position data. A location **server** may convert the incoming data into an actual position in a mobile radio **network**, e.g. using **GPS** coordinates.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a locating module.

USE - E.g. for a cash container, safe etc.

ADVANTAGE - Allows location even under poor transmission conditions, such as inside the boot of a car.

DESCRIPTION OF DRAWING(S) - The drawing shows a decoy cash wad.  
pp; 6 DwgNo 1/1

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25/3,AB/9 (Item 8 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013535759

WPI Acc No: 2001-019965/200103

XRPX Acc No: N01-015235

Positional information providing apparatus for visually handicapped,  
computes differential vector of positional information of previous and  
latest positional information, to determine user's progress direction

Patent Assignee: NIPPON TELEGRAPH & TELEPHONE CORP (NITE )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000292197	A	20001020	JP 99100484	A	19990407	200103 B

Priority Applications (No Type Date): JP 99100484 A 19990407

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2000292197	A	10	G01C-021/00	

Abstract (Basic): JP 2000292197 A

Abstract (Basic):

NOVELTY - The **positional** information of locality,  
**received** from transmitting stations, is stored in the memory of  
**mobile** terminal (2A). A **calculator** computes the  
differential vector of positional information of previous and latest  
positional information. Based on the computed differential vector, the  
progress direction of user is determined.

USE - For providing positional information and guidance information  
to visually handicapped persons in indoor/outdoors using **GPS**  
based mobile communication **network**.

ADVANTAGE - The guidance information is provided globally, even  
when the entire guidance information is not received by the receiver  
corresponding to the ID of **transmitter**. As the positional  
**information** is provided adaptively at any time, the route  
direction information is also obtained, reliably.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of  
mobile station using single antenna.

Mobile terminal (2A)

pp; 10 DwgNo 2/13



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25/3,AB/10 (Item 9 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012096587

WPI Acc No: 1998-513498/199844

XRPX Acc No: N98-401208

Mobile communication system using **GPS** for **wireless** facsimile

- **transmits** self position **information**, command information

and message to base station, and are displayed on map of screen

Patent Assignee: OKI ELECTRIC IND CO LTD (OKID )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10224849	A	19980821	JP 9721786	A	19970204	199844 B

Priority Applications (No Type Date): JP 9721786 A 19970204

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 10224849	A		8 H04Q-007/34	

Abstract (Basic): JP 10224849 A

The system includes a **mobile** terminal which **detects** its position and **transmits** the self positional **information** and state of mobile terminal to base station. A message transmitter transmits message from mobile terminal to base station. The base station **receives** self **position** information and message using information receiver.

A command **transmitter transmits** command **information** to mobile terminal. A management unit manages the position and state of mobile terminal. The command information output from base station, self positional information and message are displayed on a map of screen (5). A speaker (6) outputs the command information, depending upon necessity.

ADVANTAGE - Enables to **detect** situation of **mobile** terminal easily. Provides relationship between moving terminals.

Dwg.1/5

25/3,AB/11 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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07333646

METHOD AND APPARATUS FOR **DOWNLOADING** OF MAP INFORMATION

PUB. NO.: 2002-202135 [JP 2002202135 A]  
PUBLISHED: July 19, 2002 (20020719)  
INVENTOR(s): OTSUKI MAKOTO  
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD  
APPL. NO.: 2000-401459 [JP 2000401459]  
FILED: December 28, 2000 (20001228)

ABSTRACT

PROBLEM TO BE SOLVED: To provide a method and an apparatus wherein proper map information taking a movement distance into consideration is downloaded to a moving object being moved.

SOLUTION: On the basis of **GPS** position data and **GPS** time data transmitted by an on-vehicle navigation system 1 through a network 21, an information center 11 roughly **calculates** the speed per hour of a vehicle. A value in which the speed per hour is multiplied by a time lap required for **downloading** the map information is added to the **GPS** position data in a request to send. A position which is reached by the vehicle during the time lag is estimated. The map information corresponding to the position can be transmitted. A map in which a deviation from the actual position of the vehicle is excluded can be displayed on a display part 9. Without roughly **calculating** the speed per hour, a vehicle **speed** signal which is **received** from an on-vehicle apparatus may be used.

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25/3,AB/12 (Item 2 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05988455

**MOBILE OBJECT POSITION DETECTION SYSTEM**

PUB. NO.: 10-271555 [JP 10271555 A]  
PUBLISHED: October 09, 1998 (19981009)  
INVENTOR(s): SUGIYAMA TOMONORI  
APPLICANT(s): TEC CORP [000356] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 09-071564 [JP 9771564]  
FILED: March 25, 1997 (19970325)

**ABSTRACT**

**PROBLEM TO BE SOLVED:** To miniaturize and lighten a portable equipment and to eliminate the need of a battery by making a first mobile object carry a responder for transmitting identification response signals at the time of receiving interrogation signals from a second mobile object and providing the second mobile object with a position detection means for detecting its own present position and a communication means for adding the **position** information to the **received** response signals and transmitting them to a base station.

**SOLUTION:** The first mobile object 1 carries the responder 2. At the time of receiving the interrogation signals from a communication equipment 4 loaded to the second mobile object 3, the responder 2 **receives power** from the signals and **transmits ID information** as the response signals. The communication equipment 4 is provided with a car **speed detection** part and transmits the interrogation signals with frequency proportional to a car speed. Also, a **GPS** part for receiving **GPS** signals and calculating the present position and a communication part for adding present position information to the ID information received by an interrogator and transmitting them to the base station 5 are provided. The base station 5 compares the received ID information with search request information, and when they match, reports the position information through a public line **network** 6.

25/3,AB/13 (Item 3 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05780500  
INFORMATION DISPLAY CONTROL METHOD

PUB. NO.: 10-063600 [JP 10063600 A]  
PUBLISHED: March 06, 1998 (19980306)  
INVENTOR(s): INUDOU TAKUYA  
KIYOSUE TOMOYUKI  
APPLICANT(s): NIPPON TELEGR & TELEPH CORP <NTT> [000422] (A Japanese  
Company or Corporation), JP (Japan)  
APPL. NO.: 08-214661 [JP 96214661]  
FILED: August 14, 1996 (19960814)

#### ABSTRACT

PROBLEM TO BE SOLVED: To lighten the load on a **network** and a client computer by controlling the amount of data transferred from a **server** with an Indication from the client according the moving speed of the client.

SOLUTION: A terminal device consists of a portable personal computer 1, a **GPS** antenna 2 for position **information** acquisition, and a **transmitter** receiver 3 for communication. The moving speed is obtained from a calculation result based upon variation per unit time as to position information acquired by input from a specific device such as a vehicle **speed sensor**, etc., which **measures** the moving **speed** of a vehicle or position information obtained on the client side from the **GPS** antenna 2. Thus, the moving speed of the user is acquired and the precision of information which is displayed is varied according to the obtained moving speed. Namely, the physical moving speed of the user is calculated by the input of the physical moving speed of the user from some device or a difference in moving coordinate value to **transmit information** from the **server** with precision matching the moving speed of the user.

28/3,AB/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014518455

WPI Acc No: 2002-339158/200237

XRAM Acc No: C02-097328

XRPX Acc No: N02-266726

System for monitoring e.g. corrosion, in steel reinforced structure e.g. concrete bridge, uses monitoring instrument embedded in structure, that receives signals from electronic module with sensors and **transmits** signals to **data** logger

Patent Assignee: HUDSON J K (HUDS-I); JONES S H (JONE-I); KELLY R G (KELL-I); ROSS R A (ROSS-I)

Inventor: HUDSON J K; JONES S H; KELLY R G; ROSS R A

Number of Countries: 095 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200206764	A1	20020124	WO 2001US22324	A	20010711	200237 B
US 20020057097	A1	20020516	US 2000219370	P	20000719	200237
			US 2001899908	A	20010706	
AU 200173495	A	20020130	AU 200173495	A	20010711	200241

Priority Applications (No Type Date): US 2000219370 P 20000719; US 2001899908 A 20010706

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200206764	A1	E	39	G01B-007/16	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

US 20020057097 A1 G01R-027/08 Provisional application US 2000219370

AU 200173495 A G01B-007/16 Based on patent WO 200206764

Abstract (Basic): WO 200206764 A1

Abstract (Basic):

NOVELTY - Monitoring system for material changes in structure uses at least one monitoring instrument, with body, individual ID and embedded in the structure. The monitoring instrument receives signals from an electronic module with sensors, converts signals from analog to digital and transmits digital signals for each of the monitors to a data logger.

DETAILED DESCRIPTION - Monitoring system for material changes in structure uses at least one monitoring instrument, with body, individual ID and embedded in the structure. It has at least one electronic module with sensors in contact with the material, and a monitor to receive signals from the material and pass them through an analog-to-digital converter to a microcontroller. The signals are then passed to a digital-to-analog converter, and then to the electronic monitor. Digital signals are **transmitted** to a **data** logger, external from the structure and receiving and storing digital signals. A potting material encompasses the modules within the monitoring instrument that receive signals from the module, converts signals from

analog to digital and transmits digital signals for each of the monitors based on the ID to the data logger. The system further includes a power means. INDEPENDENT CLAIMS are included for;

(1) A method of monitoring corrosion in a steel reinforced concrete structure using the above system;

(2) An instrument case to enable electronic sensor to be embedded into a structural material, comprising a hollow body of material with flexural modulus at least that of the structural material stress divided by the structural material strain, to contain and protect electronic modules from contact with the material. At least one electrode receiving port is at one end of the body, and at least one cable port receives a **network** cable. Adjacent sides are rounded to direct pressure form the material around the instrument to prevent the instrument case from developing cracks under pressure; and

(3) A method of monitoring concrete curing using an embedded monitoring instrument as above.

USE - For monitoring corrosion and other material changes in a steel reinforced structure, such as concrete bridges, roadways and load bearing members.

ADVANTAGE - Current methods are designed to be embedded in steel reinforced concrete structures to monitor electrochemical corrosion related parameter and cannot be used for other applications. A cable is used to connect the electrode to the instrumentation and power source outside of the structure, by affecting the accuracy, which is inversely proportional to the length of the cable between the electrodes and the signal processing electronics. By placing electronic sensors within the instruments, the signal loss is dramatically reduced and more accurate readings are enabled.

DESCRIPTION OF DRAWING(S) - The drawing shows a block diagram of the monitoring instrument.

pp; 39 DwgNo 1/14

33/3,AB/1 (Item 1 from file: 6)  
DIALOG(R)File 6:NTIS  
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1513278 NTIS Accession Number: NTN90-0478

Using Bit Errors To Diagnose Fiber-Optic Links: Bit-error **rates** are related to degradation of components

(NTIS Tech Note)

National Aeronautics and Space Administration, Washington, DC.

Corp. Source Codes: 011249000

Jun 90 1p

Languages: English

Journal Announcement: GRAI9017

FOR ADDITIONAL INFORMATION: Contact: NASA Technology Transfer Div., PO Box 8757 BWI Airport, MD 21240; (301) 621-0100 ext 241. Refer to NPO-17433/TN.

NTIS Prices: Not available NTIS

This citation summarizes a one-page announcement of technology available for utilization. A technique for the diagnosis of a fiber-optical digital communication link in a local-area **network** of computers is based on the **measurement** of bit-error **rates**. The technique is similar to that used to detect changes in the performances of telephone modems and transmission media. The objective is to measure the degradation of the transmitter, receiver, optical fiber, connectors, and other equipment so that components can be replaced before they fail. A variable optical attenuator is inserted in the optical fiber near the receiver. Using the protocol of the local-area **network**, pseudorandom sequences of zeros and ones are **transmitted** as packets of **data**. The sequences put out by the receiver are compared with the known transmitted sequences to determine the bit-error **rates**. For an optimal decision stage (the part of the receiver that decides whether a received bit is a zero or a one), the bit-error **rate** and the signal-to-noise ratio of the out-put of the receiving photodetector are known functions of each other. As the total amount of optical attenuation along the transmission path increases, the signal-to-noise ratio in the receiver decreases and the bit-error **rate** increases. The optical attenuator is adjusted to obtain the desired bit-error **rate**, which is typically between  $10^{-4}$  and  $10^{-8}$ . From this bit-error **rate**, the signal-to-noise ratio and, therefore, the effective peak signal **power** at the **receiver** are deduced.

33/3,AB/3 (Item 1 from file: 8)  
DIALOG(R)File 8:Ei Compendex(R)  
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06117386

E.I. No: EIP02357063055

Title: The monitoring of Power Quality using low-cost smart **web** sensors

Author: Bucci, Giovanni; Caschera, Ivano; Fiorucci, Edoardo; Landi, Carmine

Corporate Source: Dipartimento di Ingegneria Elettrica Universita di L'Aquila, 67040 L'Aquila, Italy

Conference Title: 19th IEEE Instrumentation and Measurement Technology Conference

Conference Location: Anchorage, AK, United States Conference Date: 20020521-20020523

E.I. Conference No.: 59420

Source: Conference Record - IEEE Instrumentation and Measurement Technology Conference v 2 2002. p 1753-1756 (IEEE cat n 00ch37276)

Publication Year: 2002

CODEN: CRIIE7

Language: English

Abstract: The problem of Power Quality (PQ) concerns the interferences which can be present in the mains. These electromagnetic disturbances can cover a large interval of frequencies and can be present in industrial, domestic as well as commercial systems. As main negative effects we can mention the high order harmonics, voltage fluctuations, flicker and disturbances with high slew-rates. The **monitoring** of the PQ of supply **networks** is then an issue of worldwide interest. It is frequently indispensable to measure PQ indexes in wide electric power plant or in industrial zones. To this aim a low-cost smart **Web** sensor has been designed and implemented to acquire, process and **transmit data** over a 802.3 **network**. It is organized in multi micro controllers system: the first one dedicated to the data acquisition and the other to data processing, dynamic HTML pages construction and TCP/IP stack management. Key features of the realized device are low-cost, data processing and remote communication capabilities, the possibility to provide data with any **internet** browser. In the paper the main steps of design, implementation and characterization of the proposed system are given. 12 Refs.



01/30/2003

14:51

09/992,966

33/3,AB/5 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014972717

WPI Acc No: 2003-033231/200303

XRPX Acc No: N03-026247

Construction management device for industrial machine, has **mobile** telephone which **transmits** construction **data** to management office, operation display section which corrects **detected speeds** and memory which stores construction data

Patent Assignee: NIPPON SHARYO SEIZO KK (NISA )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002256555	A	20020911	JP 200154707	A	20010228	200303 B

Priority Applications (No Type Date): JP 200154707 A 20010228

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2002256555	A	7	E02D-007/00	

Abstract (Basic): JP 2002256555 A

Abstract (Basic):

NOVELTY - The construction management device (20) has a **mobile** telephone (21) which sends construction data to a management office (40) through **internet**, an operation display section (26) which corrects elevation and rotational **speeds** of industrial machine **sensed** by a detector (10) based on desired construction value, and a memory (24) which stores construction data and desired construction value.

USE - For industrial machine used in ground improvement work and embedding pile construction work.

ADVANTAGE - The construction management device improves operation effectiveness, by correcting **detected speeds** of industrial machine based on desired construction value.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the construction management device. (Drawing includes non-English language text).

Detector (10)

Construction management device (20)

**Mobile** telephone (21)

Memory (24)

Operation display section (26)

Management office (40)

pp; 7 DwgNo 1/7

33/3,AB/7 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014675006

WPI Acc No: 2002-495710/200253

XRPX Acc No: N02-392274

Telecommunication control apparatus for telecommunication **network**,  
performs data communication using address of receiver, that matches with  
data component

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002158703	A	20020531	JP 2000355415	A	20001122	200253 B

Priority Applications (No Type Date): JP 2000355415 A 20001122

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2002158703	A	9	H04L-012/56	

Abstract (Basic): JP 2002158703 A

Abstract (Basic):

NOVELTY - A monitoring unit (2) **measures** the data  
**receiving speed** for each address of a receiver. A  
calculator (4) divides the **data** to be **transmitted** by a  
**transmitter**, into **data** component. A data communication unit  
performs data communication using the address of the receiver, that  
matches with the divided data component.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for  
communication control method.

USE - For telecommunication **network**.

ADVANTAGE - The receiving time of data which a user needs in the  
communication device, is shortened.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of  
the telecommunication control apparatus. (Drawing includes non-English  
language text).

Monitoring unit (2)

Calculator (4)

pp; 9 DwgNo 1/5

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33/3,AB/9 (Item 6 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014493204

WPI Acc No: 2002-313907/200235

Method and apparatus for managing treadmill exercise program  
Patent Assignee: NARAE TECHNOLOGY INC (NARA-N)  
Inventor: LEE J Y

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001105555	A	20011129	KR 200026041	A	20000516	200235 B

Priority Applications (No Type Date): KR 200026041 A 20000516

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2001105555	A	1	G06F-019/00	

Abstract (Basic): KR 2001105555 A

Abstract (Basic):

NOVELTY - A method and an apparatus for managing a Treadmill exercise program is provided to increase the effectiveness of an exercise by controlling sports equipment suitable for a capacity for exercise and an exercise program.

DETAILED DESCRIPTION - An angle **sensor**(2) and a **speed sensor**(3) are installed in a plurality of Treadmills(5) in order to **detect** a **speed** and an angle of a driving unit(1). A client computer(6) respectively **receives** information on the **speed** and the angle from the Treadmill(5). A **server** computer(7) is connected to the client computer(6) through the **internet**. The **server** computer(7) receives the information. The **server** computer(7) processes the information according to the exercise program and **transmits** the **information** to the client computer(6). A control unit(8) controls the driving unit(1) through the **information transmitted** to the client computer(6). An input device(9) is installed in the client computer(6) in order to input personal conditions and exercise programs.

pp; 1 DwgNo 1/10

33/3,AB/11 (Item 8 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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014217990

WPI Acc No: 2002-038688/200205

Isdn subscriber access subsystem in variable **speed** transfer system  
communication **network**

Patent Assignee: HANWHA CORP (HANW-N)

Inventor: KIM H S

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001054477	A	20010702	KR 9955307	A	19991207	200205 B
KR 328207	B	20020316	KR 9955307	A	19991207	200263

Priority Applications (No Type Date): KR 9955307 A 19991207

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2001054477	A	1	H04L-012/16	
KR 328207	B		H04L-012/16	Previous Publ. patent KR 2001054477

Abstract (Basic): KR 2001054477 A

Abstract (Basic):

NOVELTY - An ISDN subscriber access subsystem in a variable **speed** transfer system communication **network** is provided to carry out ISDN telephone communication not only in an **Internet network** but also other data **networks** using an ISDN subscriber access subsystem in a variable **speed** transfer system.

DETAILED DESCRIPTION - A line interface(110) executes a function to define the electrical characteristics of ISDN BRI(Basic **Rate** Interface) and PRI(Primary **Rate** Interface). An ADSL **detection** part(110) makes data service, other than ISDN channel service, achieved. A digital subscriber interface(120) executes a function to separate various channels. Among channel information separated through the digital subscriber interface(120), a channel control part(125) **transmits data channel information** to a full channel HDLC(High level Data Link Control Procedures) control part(145) and voice information for the other channels to a compression codecs(135,140). A memory part(130) stores information generated from a CPU(150) and billing/statistics-based information for data traffic. The compression codecs(115) compress or decompress voice information according to call quality. An HDLC control part(145) executes the layer-2 processing of all data transfer channels, including the D-channel signal provided from the channel control part(125). The CPU(150) executes a D-channel signal and data protocol processing function and a call processing management function. A communication control part(155) monitors system operation status or executes a communication function with an upper processor of the subscriber access subsystem(100). A switch ID control part(155) separates ADSL data from compressed voice information and executes a destination point communication path discrimination function. A variable **speed** switch interface(165) transmits and **receives variable-speed** data.

pp; 1 DwgNo 1/10

33/3,AB/17 (Item 14 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013466161

WPI Acc No: 2000-638104/200061

XRAM Acc No: C00-191857

XRFX Acc No: N00-473321

Method for measuring properties of moving fiber **web**, involves  
setting **speed** of **measuring** roll to be equal to fiber  
**web speed** so that fiber **web** is in non-slipping contact  
with measuring roll during rotation of roll

Patent Assignee: NELES PAPER AUTOMATION OY (NELE-N); METSO PAPER AUTOMATION  
OY (METS-N)

Inventor: SHAKESPEARE J

Number of Countries: 091 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200052264	A1	20000908	WO 2000FI172	A	20000303	200061 B
AU 200031684	A	20000921	AU 200031684	A	20000303	200065
EP 1159483	A1	20011205	EP 2000909380	A	20000303	200203
			WO 2000FI172	A	20000303	
US 6441904	B1	20020827	US 99262701	A	19990304	200259

Priority Applications (No Type Date): US 99262701 A 19990304

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200052264 A1 E 19 D21F-007/06

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP  
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE  
SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200031684 A D21F-007/06 Based on patent WO 200052264

EP 1159483 A1 E D21F-007/06 Based on patent WO 200052264

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LV MK RO SI

US 6441904 B1 G01N-021/86

Abstract (Basic): WO 200052264 A1

Abstract (Basic):

NOVELTY - Property measuring method involves applying stimulus of  
mechanical or radiant energy to **web** and measuring properties of  
fiber **web** with a sensor arranged in a measuring roll which is  
contacted with **web** to be **measured**. Circumferential  
**speed** of **measuring** roll is set to be equal to fiber  
**web speed** so that **web** is substantially in  
non-slipping contact with the roll for an arc of rotation of the roll.

DETAILED DESCRIPTION - Property measuring method involves applying  
stimulus of mechanical or radiant energy to **web** and measuring  
properties of fiber **web** with a sensor (8) (which measures  
modulation of stimulus by **web**) arranged in a measuring roll (7)  
which is contacted with **web** to be **measured**. Circumferential  
**speed** of **measuring** roll is set to be substantially equal to  
the fiber **web speed** so that **web** is substantially in

non-slipping contact with the roll for an arc of rotation of the roll.

An INDEPENDENT CLAIM is also included for apparatus for measuring properties of moving fiber **web**. The apparatus has unit for applying stimulus of mechanical or radiant energy to **web**, at least one sensor element and a rotating measuring roll which is contacted with the fiber **web** to be measured.

USE - For measuring properties of a moving fiber **web** used in paper making machines used for forming paper and paper boards.

ADVANTAGE - As sensor element is continuously in contact with the same area of the **web** for a time sufficient for reliable measurement there is no machine direction (MD) averaging implicit in the measurement except in the area of sensor element. As spacing of sensor element in MD is fixed, resolution of measurement in MD is also fixed and does not vary with **web speed**. A true CD profile measurement is provided as measurement is simultaneously performed at several places along CD. As the **web** is in contact with the roll its **position** to the **sensor** is known which is constant and does not vary either with CD position or with process operating conditions, so that **web** fluttering does not affect the measurement technique. Measuring roll can support the **web** during measurement so that measuring apparatus can be situated in places where the **web** cannot support itself. The sensor element is responsive to more than one **web** property. Different properties can be measured as unit for detection in sensor element is used in conjunction with unit for stimulus for one or more sensor elements.

DESCRIPTION OF DRAWING(S) - The figure shows schematic view of properties measuring apparatus.

Measuring roll (7)

Sensor element (8)

pp; 19 DwgNo 2/4

33/3,AB/25 (Item 22 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011804628

WPI Acc No: 1998-221538/199820

XRPX Acc No: N98-175395

Karaoke apparatus for karaoke communication system - has synchronising device which synchronises specific variation event with another variation event when **detected** designation **speed** of specific variation event exceeds image processing **speed** of CPU

Patent Assignee: CASIO COMPUTER CO LTD (CASK )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10063276	A	19980306	JP 96231293	A	19960814	199820 B

Priority Applications (No Type Date): JP 96231293 A 19960814

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 10063276	A		9 G10K-015/04	

Abstract (Basic): JP 10063276 A

The apparatus has a CPU (1) which processes image data which are varied according to music data corresponding to a variation event. A **sensor detects** the designation **speed** of a specific variation event e.g. image data display-colour variation event.

A synchronising device is provided to synchronise the specific variation event with another variation event e.g. words character display-colour variation event when the **detected speed** exceeds the image processing **speed** of the CPU.

ADVANTAGE - Enables reducing event processing load through synchronisation of specific variation event with another variation event. Enables processing of karaoke **data downloaded** from **server**, even when client-side karaoke apparatus has low-**speed** CPU and low-**speed** display driver.

Dwg.1/7

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33/3,AB/27 (Item 24 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011632314

WPI Acc No: 1998-049442/199805

XRPX Acc No: N98-039713

VOD system for movie, news, shopping information - includes velocity  
modification transmitting unit which alters transmitting velocity of  
video stream data from that of predetermined transmitting velocity

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 9298734	A	19971118	JP 96109242	A	19960430	199805 B

Priority Applications (No Type Date): JP 96109242 A 19960430

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 9298734	A	10	H04N-007/16	

Abstract (Basic): JP 9298734 A

The system includes a communicating buffer which stores stream of video data received through a **network**. Certain terminals are provided for sequentially decoding and reproducing video signals on receiving a video transmitting request from individual terminal. A video **server** transmits an encoded video stream data to each terminal through the **network**. A terminal circuit generator is provided for every terminal, which generates timing pulse for determining the **rate** of preproduction of the video stream data. A buffer monitoring unit performs monitoring of amount of data stored in the buffer, which are decoded sequentially by a decoding control unit before storage. Based on the amount of data, any modification in the **rate** of output of the video data is obtained.

A **server** circuit generator generates timing pulse which function as a standard pulse for **detecting rate** of transmission of the video stream **data**. A **transmitting** unit reads the video stream **data** and **transmits** to each terminal based on the timing pulse, at predetermined transmitting **velocity**. Based on the **received** modification indication from the buffer monitoring unit, a velocity modification transmitting unit alters the transmitting velocity of the video stream data, to each terminal.

ADVANTAGE - Prevents over/underflow of data even during offset generation. Prevents interruption of video. Guarantees real time video regeneration.

Dwg.1/4



38/3,AB/6 (Item 3 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013817106

WPI Acc No: 2001-301318/200132

XRPX Acc No: N01-216242

Checking mechanical loading of legs using **sensor** in **shoe** and  
emitting warning if critical loading is reached

Patent Assignee: HOFMANN U (HOFM-I)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19948504	A1	20010412	DE 1048504	A	19991007	200132 B

Priority Applications (No Type Date): DE 1048504 A 19991007

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19948504	A1		2	A61B-005/11	

Abstract (Basic): DE 19948504 A1

Abstract (Basic):

NOVELTY - A pressure or deformation sensor or a pressure sensor insert is incorporated in a shoe and registers the actual loading of the legs. The registration of leg loading is useful during convalescence processes of leg operations. The mechanical loading of the legs is registered during the healing process and the measurement **data** are **transmitted** by wires or wirelessly to an evaluation unit. Audible or visual signals are used to warn the patient if a critical loading has been reached so that he can avoid overloading and ensure an optimized convalescence.

USE - E.g. for convalescence after hip replacement operations.

ADVANTAGE - The patient is warned to avoid loading that would interrupt the healing process.

pp; 2 DwgNo 0/0

01/30/2003

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38/3,AB/7 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013377349

WPI Acc No: 2000-549287/200050

XRAM Acc No: C00-164043

XRPX Acc No: N00-406335

Casing sensor for use in collecting geological data or parameters, e.g.  
pressure, temperature, acoustic energy, strain, and stress, comprises  
casing shoe with sensor coupled to it

Patent Assignee: DRESSER IND INC (DRES )

Inventor: BEIQUE J M; ROBBINS M B

Number of Countries: 021 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200049268	A1	20000824	WO 2000US4175	A	20000217	200050 B
NO 200006435	A	20010214	WO 2000US4175	A	20000217	200123
			NO 20006435	A	20001215	
EP 1153196	A1	20011114	EP 2000917644	A	20000217	200175
			WO 2000US4175	A	20000217	
US 6429784	B1	20020806	US 99255612	A	19990219	200254
US 20020149499	A1	20021017	US 99255612	A	19990219	200270
			US 2002167675	A	20020611	
US 20020149500	A1	20021017	US 99255612	A	19990219	200270
			US 2002167934	A	20020611	
US 20020149501	A1	20021017	US 99255612	A	19990219	200270
			US 2002167974	A	20020611	
US 20020154028	A1	20021024	US 99255612	A	19990219	200273
			US 2002167738	A	20020611	
US 20020154027	A1	20021024	US 99255612	A	19990219	200273
			US 2002167737	A	20020611	

Priority Applications (No Type Date): US 99255612 A 19990219; US 2002167675  
A 20020611; US 2002167934 A 20020611; US 2002167974 A 20020611; US  
2002167737 A 20020611; US 2002167738 A 20020611

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200049268	A1	E	33	E21B-017/14	
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Designated States (National): NO

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
MC NL PT SE

NO 200006435	A			E21B-000/00	
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EP 1153196	A1	E		E21B-017/14	Based on patent WO 200049268
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Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE

US 6429784	B1			G01V-003/00	
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US 20020149499	A1			G01V-003/00	Div ex application US 99255612 Div ex patent US 6429784
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US 20020149500	A1			G01V-003/00	Div ex application US 99255612 Div ex patent US 6429784
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US 20020149501	A1			G01V-003/00	Div ex application US 99255612 Div ex patent US 6429784
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US 20020154028	A1			G01V-003/00	Div ex application US 99255612 Div ex patent US 6429784
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US 20020154027	A1			G01V-003/00	Div ex application US 99255612
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EIC2800

Irina Speckhard

308-6559

Div ex patent US 6429784

Abstract (Basic): WO 200049268 A1

Abstract (Basic):

NOVELTY - The casing sensor (52) comprises a casing **shoe** (54) and a **sensor** coupled to the casing shoe.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) a casing data relay comprising a downhole receiver coupled to a well casing; and a transmitter coupled to the receiver;

(b) a method for collecting geological data, comprising sensing geological parameter(s) during drilling using the above mentioned sensor(s) that is coupled to a well casing in a well bore, collecting data from the sensor(s), and **transmitting** the **data** to the surface;

(c) a method for maintaining the integrity of a formation in the vicinity of a casing shoe, comprising measuring well bore pressure in the vicinity of the casing shoe during drilling;

(d) a method for positioning look ahead sensors, comprising positioning acoustic sensors along a casing string;

(e) a method for monitoring well control events, comprising monitoring pressure at two or more locations inside a casing of the well; and

(f) a method for determining whether a cement in a well borehole has cured, comprising positioning a temperature sensor on a casing, and monitoring the temperature of the cement using the temperature sensor.

USE - Useful in casing data relay, for collecting geological data or parameters, e.g. pressure, temperature, acoustic energy, strain, and stress, of underground or undersea formations in the vicinity of a well bore under construction.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of a section of the casing sensor.

Casing sensor (52)

Casing shoe (54)

Drill string (76)

Pressure sensor (80)

pp; 33 DwgNo 6/8

01/30/2003

14:57

09/992,966

38/3,AB/8 (Item 5 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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012011840

WPI Acc No: 1998-428750/199837

XRPX Acc No: N98-334700

Velocity display for rollers e.g. on roller skates - has wire signal  
lines fed from **sensor** through wall of **shoe** to miniature  
computer with integrated display

Patent Assignee: STEPHAN W (STEP-I)

Inventor: STEPHAN W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19704043	A1	19980806	DE 1004043	A	19970204	199837 B

Priority Applications (No Type Date): DE 1004043 A 19970204

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19704043	A1		3	G01P-001/07	

Abstract (Basic): DE 19704043 A

The speed display is in the form of a miniature computer with integrated display for rollers on roller shoes e.g. in-line skates or for transport devices. One or more wire signal lines are fed from the sensor through the wall of the shoe to the miniature computer with integrated display. Preferably the computer is attached to the upper side of the shoe.

The miniature computer with display may be freely positionable by extending the signal line to the body. The **information** may be **transmitted** from the sensor to the computer by radio signals.

ADVANTAGE - Does not affect construction of skates etc. and maintains dimensions to allow detection and representation of the speed for evaluating time and path.

Dwg.1/1

01/30/2003

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38/3,AB/10 (Item 7 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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009317226

WPI Acc No: 1993-010690/199302

Related WPI Acc No: 1991-281564; 1993-316629

XRPX Acc No: N93-008043

Impact responsive shoe with piezoelectric material in sole - has power source connected to piezoelectric device which generates signal to light

LED in response to force of impact

Patent Assignee: MOTT J C (MOTT-I); MOTT J C (MOOT-I)

Inventor: MOTT J C

Number of Countries: 020 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 522882	A2	19930113	EP 92306389	A	19920713	199302 B
AU 9219564	A	19930114	AU 9219564	A	19920710	199309
CA 2073586	A	19930113	CA 2073586	A	19920710	199313
EP 522882	A3	19931229				199515
US 5500635	A	19960319	US 92866171	A	19920626	199617
			US 94337320	A	19941110	
KR 9611268	B1	19960821	KR 9212428	A	19920713	199924

Priority Applications (No Type Date): GB 9115196 A 19910712; GB 903810 A 19900220; GB 9011681 A 19900524

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 522882	A2	E	36	A43B-003/00	
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Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE

US 5500635	A	33	G08B-023/00	Cont of application US 92866171
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AU 9219564	A		A43B-007/04
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CA 2073586	A		G01P-015/09
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KR 9611268	B1		H01L-041/08
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Abstract (Basic): EP 522882 A

The impact responsive **shoe** contains an impact **sensor** comprising a polymeric sheet of piezoelectric material (219) for generating trigger signals on impact, a light emitting diode (226) or other device for giving an output signal, and a monostable circuit (220) connected to the sensor and output LED. A battery is provided to power the circuitry.

The circuit responds to a trigger signal from the impact sensor by driving the output LED to deliver an output signal on impact. The length of output pulse is determined by a R-C combination. The LED may be within the shoe with optical fibres carrying the light to the outside.

USE/ADVANTAGE - Novelty, training, or **information-gathering**.

Dwg. 1/22

Abstract (Equivalent): US 5500635 A

A shoe that lights, comprising a sole;

pressure sensor means incorporated within the sole comprising piezoelectric material for generating trigger signals upon application of pressure to the material, the sole imparting pressure to the

EIC2800

Irina Speckhard

308-6559

material when impressed against a surface;  
a light emitting diode (LED);  
power means for powering the LED;  
monostable multivibrator circuit means interconnecting the pressure sensor means, the LED and the power means, wherein the circuit means responds to the trigger signals to control the power means to power the LED in response to the pressure imparted by the sole on the material;  
wherein the circuit means comprises  
input means for accepting the trigger signals from the pressure sensor means and transmitting the trigger signals to the circuit means, the input means including sensitivity resistive means across which the trigger signals are applied for controlling the sensitivity of the piezoelectric material;  
output leads for transmitting a signal generated by the circuit means to the LED, including a first resistive means for limiting the current through the LED;  
a second resistive means coupled with a capacitive means to form a resistive-capacitive (R-C) combination timing means for determining the length of time the signal is generated by circuit means; and  
means for applying the voltage developed across the capacitive means of the R-C timing circuit means to the input of the monostable multivibrator circuit means.

Dwg.1/24

38/3,AB/11 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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05879143

AUTOMATIC CASH TRANSACTION SYSTEM

PUB. NO.: 10-162243 [JP 10162243 A]  
PUBLISHED: June 19, 1998 (19980619)  
INVENTOR(s): OHARA SHUNICHI  
HAMADA TOMOHIRO  
APPLICANT(s): HITACHI LTD [000510] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-315884 [JP 96315884]  
FILED: November 27, 1996 (19961127)

ABSTRACT

PROBLEM TO BE SOLVED: To safely and surely **transmit information** from portable terminals to an automatic teller machine(ATM) for plural clients by **transmitting transaction information** stored in transaction information storage means from the portable terminals to the ATM operated by clients.

SOLUTION: The transaction information inputted from an input means 34 of portable terminal 32 is stored in a transaction information storage means 56 and when the client selects transmission through the input means 34, this information is modulated, amplified and transmitted from a transmission/ reception antenna 26 by a transmitting/receiving means 51, The transaction **information transmitted** from the portable terminal 32 is received from the transmission/reception antenna 22 to a radio transmitter/receiver 24 inside a **booth**. The radio **transmitter** /receiver 24 has a transmitting/receiving means 59, storage means 55 for temporarily storing **information** to be **transmitted** / received, and field strength judging means 62. Radio waves passed through the field strength judging means 62 are demodulated by the transmitting/ receiving means 59. The extracted transaction information is stored in a transaction information storage means 57. At that time point, reception confirm **information** is **transmitted** to the portable terminal 32.

01/30/2003

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30jan03 16:02:58 User267149 Session D556.1

SYSTEM:OS - DIALOG OneSearch

File 348:EUROPEAN PATENTS 1978-2003/Jan W04

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20030123,UT=20030116

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Set	Items	Description
S1	22426	((DROP(W)DISTANC???? OR RATE??? OR SPEED??? OR AIRTIM???? OR AIR(W)TIM???? OR MOBIL?????) (3N) (DETECT? OR SENSE? OR SENSING OR ANALYZ? OR ANALYS? OR ESTIMAT? OR CALCULAT? OR MEASUR? OR MONITOR?)) /TI,AB,CM
S2	44256	((SPEED? OR AIR()TIME OR AIRTIME OR DROP()DISTANC? OR POWER???? OR ENERG??? OR AGGRESSIVE???? OR VELOCIT???? OR POSITION?) (3N) (SENS???? OR RECEIV????)) /TI,AB,CM
S3	42371	((TRANSMIT? OR DOWNLOAD? OR DOWN(W)LOAD? OR GATHER?) (3N) (DATA OR DATUM OR INFORMAT?)) /TI,AB,CM
S4	50694	((INTERNET OR WEB OR WEBSITE?? OR SERVER?? OR NETWORK??? OR WIRELESS???? OR WIRE()LESS????) (3N) DATABASE??? OR DATA()BASE????) /TI,AB,CM
S5	2652	((ATHLET???? OR SPORTSMEN OR SPORTS()MEN OR USER??) (3N) PERFORM????) /TI,AB,CM
S6	7101	((WIRELESS OR WIRE()LESS OR MOBIL????) (3N) (SENSOR???? OR RECEIV????)) /TI,AB,CM
S7	4119	(GPS OR GLOBAL()POSITION() (SATELLITE??? OR SYSTEM???)) /TI,AB,CM
S8	22	(ENERG? (3N) POWER?) /TI,AB,CM
S9	117	((SKI OR SNOWBOARD? OR SNOW()BOARD? OR BIKE? OR WINDSURF? OR WIND()SURF? OR ROLLER()BLAD? OR SKAT?()BOARD? OR BOOT?? OR SHOE?? OR SNEAKER??? OR KAYAK????) (3N) PERFORM????) /TI,AB,CM
S10	5011	S1 AND S2
S11	453	S10 AND S3
S12	73	S11 AND S4
S13	6	S12 AND S5
S14	6	IDPAT (sorted in duplicate/non-duplicate order)
S15	67	S12 NOT S13
S16	24	S15 AND S6
S17	12	S16 AND S7
S18	12	IDPAT (sorted in duplicate/non-duplicate order)
S19	12	S16 NOT S17
S20	0	S19 AND S8
S21	0	S19 AND S9
S22	12	IDPAT S19 (sorted in duplicate/non-duplicate order)
S23	2	S1 AND S9
S24	1929	S1 AND S3
S25	61	S24 AND S5
S26	10	S25 AND S7
S27	10	IDPAT (sorted in duplicate/non-duplicate order)

14/TI,PN,PD,PY,K/1 (Item 1 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

AN OBJECT-ORIENTED KNOWLEDGE BASE SYSTEM  
SYSTEME DE BASE D'APPRENTISSAGE ORIENTE OBJET  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200209489 A2 20020207 (WO 0209489)  
Publication Year: 2002

#### Claim

... in the present invention, this situation is  
25 described as,  
"perform" is higher class 'algorithm-of-process' of 'move'  
(intransitive).  
More precisely describing,  
-ALGORITHM- (someone) **performs** a (process) -is-higher-class  
of ALGORITHM30 (someone) moves (something).  
In this **sense**, the **power** of expression of an  
object-oriented knowledge base system disclosed in the present invention  
approximates to the power of expression of natural languages. The details  
...the speed meter of the ideal train. The train driver of the ideal  
train can tell the value of the acceleration of the train by  
**calculating** the **rate** of change of the velocity of the ideal  
train. Therefore, the train driver knows the value of the acceleration of  
the velocity with which the...used in the experimental measurement of the  
value of 'm'and'F'. Speaking in a concrete way, the value of Wof the  
ideal train is **measured** using its **speed** meter; the  
**speed** meter includes, say, a dynamo directly synchronized to the 25  
rotation of a wheel of the ideal train, and a voltmeter measuring the  
voltage given...the'". This "sentence pattern of function" can be used  
to represent the key of a data used as a rule in an object-oriented  
knowledge **base** system disclosed in the present invention. If one  
wants to use systematically a sentence in "sentence pattern of function!"  
as a rule in an object...names-of-classification-items' used in the  
10 retrieval of hypothetical proposition used in reasoning of the present  
step <<Lexical Definition of 'means for storing **data** about  
instances of solving problems'>> Sentence in "sentence pattern of  
instances of solving problems" and/or something that stores the  
information of it, is a...  
plurality of forward links and at least one reverse link with the user  
terminals 106 Once these links are established, the base station 102  
**transmits** voice communications and **data** communications to the  
user terminals 106-122 on the plurality of F-CHs. Likewise, the user  
terminals 106-122 **transmit** voice communications and **data**  
communications to the base station 102 on the reverse link(s). Some of  
the user terminals (e.g., voice terminals 118, 120 and 122) service...  
frame the voice/data is located and, optionally, at what data rate the  
voice/data is sent. The user terminal may then receive the voice/  
**data based** upon this indicat

14/TI,PN,PD,PY,K/4 (Item 4 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

DETERMINING A PATIENT'S SUSCEPTIBILITY TO ARRHYTHMIA  
DETERMINATION DU RISQUE D'ARYTHMIE CHEZ UN PATIENT  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200076397 A1 20001221 (WO 0076397)  
Publication Year: 2000

aim

... can be preassembled with leads of different lengths to accommodate different room sizes and patent locations, among other factors, a general consideration is that the **sensing** leads and **energy** delivery leads are less than 9 feet in length to reduce possible induced noise. Further, the leads in lead system 12 are constructed from a...

...20 CM<sup>2</sup>, and typically less than about 70 cm<sup>2</sup>. The patches of lead system 12 can be constructed with different electrical characteristics to facilitate **energy** transfer and **sensing**. Single-point connector 15 is configured to electronically mate with electronic interface 15. A top-level block diagram of electronic interface 15 is shown...externally, through patient 35's chest and into cardiac tissue. The subpacing energy is delivered just before a QRS complex event, as determined by the **data gathered** by the hardware and electronic interface 18, and as analyzed by the software. Electronic interface 18 and attached computer 27 function to process received signals...

...The combination of external sub-threshold stimulation delivered through the skin surface to change or modulate these measurements is further described herein. 10 Heart **Rate** Variability is commonly **measured** by taking a sampling of R-wave to R-wave intervals from a subject and computing the standard deviation of these intervals. Other methods include...Another menu 46 is Help drop-down menu 60. Full index and search capabilities of Help information is available. Further, on-line help, such as **information gatherable** through the Internet, is also anticipated. A high-level operator flow chart for the software described above appears in Figure 43. A typical embodiment of...

...312 on monitor 23. Inputs from the control system can control other test 24 features, as well, such as User Abort Control 304 and the **user's** ability to **perform** Test Configuration 308. Realtime Test Control and Monitor Software 310 can also send the Raw Data 303 to storage 313, and save Subject & Test Information...it is possible to stimulate internally and detect and process internally; or in other embodiments it is possible to stimulate internally or externally and **detect** externally using **mobile** units such as a mobile pack or the like. In various embodiments of these systems and methods it may be necessary to stimulate so as...injected energy to said means for injecting low level electromagnetic energy into the 10 patient's body, said lead system, comprising a plurality of **energy sensing** and **energy** delivery leads; and utilizing sensing improvement means for improving the quality of the **sensed** electromagnetic **energy** during the stimulation and acquisition process. 15 2. A method for assessing heart characteristics

comprising the steps of providing means for injecting low level electromagnetic...

...delivering the injected energy to said means for injecting low level electromagnetic energy into the patient's body, said lead system, comprising a plurality of **energy sensing** and **energy** delivery leads; and utilizing sensing improvement means for improving the quality of the **sensed** electromagnetic **energy** during the stimulation and acquisition process.

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27/TI,PN,PD,PY,K/9 (Item 9 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

GLOBALLY TIME-SYNCHRONIZED SYSTEMS, DEVICES AND METHODS  
SYSTEMES GLOBALEMENT SYNCHRONISES DANS LE TEMPS

Patent and Priority Information (Country, Number, Date):

Patent: WO 200050974 A2-A3 20000831 (WO 0050974)  
Publication Year: 2000

Claim

... shown in FIG. 1, each client machine 1 6 0  
includes a global synchronization unit 175 (GSU), whereas each  
competitionpromoting server 50 includes a standard **GPS** receiver  
170. As shown in FIG.

1 the **global positioning system** employed by the  
competition-enabling  
system comprises a plurality of **GPS** receivers 170 operating in  
conjunction with an array of **GPS** satellites 180 occupying a  
geodesic orbit in a manner  
Page 38 of 238  
well known in the satellite art. All of the computer and database...

...system. The ITR/Response  
database 40 may also contain canonical responses for comparison with the  
actual responses generated by the competitors, as well as other  
**information** necessary for the conducting of the competition.  
The final component of system shown in FIG. 1 which deserves  
mention is the communications network 190. In...clock is  
contained in an embedded or peripheral device known as the global  
synchronization unit (GSU) 175. The GSU at each client machine  
incorporates a **global positioning system (GPS)**  
receiver to provide a precise timing reference that is accurate to within  
1 microsecond of international  
atomic clock standard time. The GSUcan be programmed to...

...same for each every contestant, regardless of their location on the  
planet.  
Characterization of the local clock may be performed using an accurate  
clock (perhaps **GPS**-based) connected to the client machine, or it  
may be  
done using security enhanced versions of the methods and algorithms used  
in NTP, the network...

...with a global synchronization unit 175 (GSU), whereas  
the primary server I 00 and each game server 1 5 0 is equipped with a  
standard **GPS** receiver 170. As shown, the contest-promoting system  
of the  
illustrative embodiment employs a **global positioning  
system** comprising **GPS** receivers 170 operating in conjunction  
with an array of **GPS** satellites 1 8 0  
Page 43 of 238  
occupying a geodesic orbit in a manner well known in the satellite art.  
All of  
the computer...the lower layers, most often only directly interfacing  
with the layer immediately below it. In the primary server 100, the low  
level hardware includes a **GPS** receiver 170, and high precision

clock and timincy hardware 200 synchronized to a global time reference using the **GPS** receiver. In addition, the high performance network interface hardware 210 is used to connect the primary server 100 to the communications network 190. These hardware...

The GSU of the present invention is used to **measure** the video refresh rate of the video display adapter. Almost every video display adapter used in personal computers has a set of registers used to control and monitor the...The simplest method of determining this function is to use standard curve-fitting techniques. If the orlobal clock on the primary server 100 is a **GPS**-based time reference, the local clock may be characterized very precisely by also using a **GPS** reference in the client machine. The **GPS** hardware can easily produce an extremely accurate and stable I Hz signal. This signal is connected to one of the CPU IRQ lines. This causes...of the system of the present invention described above, a global time reference is accessed (by each of the client machines) through the use of **global positioning system (GPS)** receivers located in both the client machines (within the GSUs) as well as in the primary server 100. The **GPS** system receives time signals from **GPS** satellites 180 which, in turn, receive their time signals from an atomic clock.

...the present invention.

During the process of tracking a living being carrying the GSU-enabled client device of FIGS. 19A and 19B, digitally-signed TSB **data** packages are periodically **transmitted** by the GSU-enabled client network device 160" to the TSB-Stamping Based Tracking Server 1007. FIG. 21 shows an exemplary TSBtrajectory plot for an...tracking server) as the athlete travels from point to point, along a predetermined course. The collected TS data can be remotely analyzed to determine the **performance** of the **athlete** in the competition and determination of a winner. Another application for the GSU-enabled network device of the present invention is to embed a GSU...

...151 of 238

#### CLAIMS TO INVENTION

A global synchronization unit (GSU) for time and space (TS) stamping of input data elements, said GSU comprising:  
a **GPS** Receiver and an associated antenna for receiving **GPS** signals from signal sources associated with a **GPS** system symbolically embedded within a global reference system, and processing said received **GPS** signals so as to automatically produce time and space (TS) stamp data element representative of the time and space coordinates of said GSU with respect to said global reference system at each data sampling instant occurring within said GSU;

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representative of said TStrigging coordinates, said central processor automatically (i) decrypts said encrypted image data set into said decrypted image **data** set, and (ii) **transmits** said decrypted image **data** set through said ...with respect to said global reference system  
at each data sampling instant occurring within said GPS-enabled information server, and (2) a network interface for **transmitting data**  
elements to and receiving data elements from said host computing device over said information network, said GSUcomprising:  
a GPS Receiver and an associated antenna for...

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14/TI,PN,PD,PY,K/6 (Item 6 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

A DISTRIBUTED MONITORING AND PROTECTION SYSTEM FOR A DISTRIBUTED POWER  
NETWORK  
SYSTEME DE PROTECTION ET DE SURVEILLANCE REPARTIES DESTINE A UN RESEAU  
D'ENERGIE REPARTIE

Patent and Priority Information (Country, Number, Date):

Patent: WO 200048284 A1 20000817 (WO 0048284)  
Publication Year: 2000

English Abstract

A distributed monitoring and protection system for a distributed power network. The system includes a plurality of high-**speed measuring** units (MUs), wherein each MU is coupled to a power line to measure values of electrical parameters of the power line. Electrical parameters, such as...



18/TI,PN,PD,PY,K/1 (Item 1 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

CALL-BASED PROVISIONING OF MOBILE EQUIPMENT LOCATION INFORMATION  
DIFFUSION D'INFORMATIONS DE POSITION D'UN EQUIPEMENT MOBILE EN FONCTION  
D'APPELS

Patent and Priority Information (Country, Number, Date):  
Patent: WO 200296138 A1 20021128 (WO 0296138)  
Publication Year: 2002

Claim

... and from a mobile station  
includes U.S. Pat. No. 5,559,520 which generally describes tracking the location change of a user using a **GPS** system and providing information from a dispatcher to the user regarding a vehicle's geographic coordinates. U.S. Pat, No. 5,926,108 generally describes...any requisite conditions, subscriber preferences 244, subscriber status 246, and any intelligence factor 248 necessary to satisfy the needs of the mobile subscriber. This subscriber **information** is **gathered** for each user and supplied to the content providers, which provide the information to the mobile subscriber. The restaurant information 105, weather information 110 and...realtime events to external content providers, application modules and services associated with the B2B engine can independently generate and provide certain desired services to those **monitored mobile** subscribers. Accordingly, a number of B2B developers 278 develop and update application modules in the B2B engine 210 to support new services and/or enhance...B2B engine 210 is connected to a portal or 5 content aggregators to provide information to the end user. The portals and the content aggregators **gather** the **information** from different content providers and supply the **gathered information** to the end user through different means that will be discussed in more detail hereinafter.  
In particular, the user first subscribes to the portal or...mobile Internet services in realtime. In particular, the present invention allows content providers to build personalized content based upon mobility in the mobile network, allows **mobile** subscribers to **receive** personalized content based upon mobility and allows mobile operators to leverage the mobility information in the mobile telecom network to move up the value chain both selecting personal preferences and storing those preferences of an **Internet** subscriber in a **database** managed by the telecommunications operator. The requisite realtime mobility information is provided via 5 interfaces with network nodes and/or network elements in the telecommunications...an event occurs, a SIM application is initialized for realtime services and over the air activation for a subscribed user, and a plurality of SIM **data** is **downloaded** (step 506) from the portal database to a Short

Message Switching Center (SMSC) 508, e.g., over an air interface. The SIM data is then...allow applications, existing in the SIM 514, to interact and operate with the Mobile Equipment (ME) 512 download the ME profile to the SIM 514, **download data** (step 506) to the SIM 514, transfer a user's menu selection to the SIM 514, call control by the SIM 514, MO Short Message...change and, upon any such change the ME 554 informs the B2B engine 552 of this change. The location information as discussed above may be **GPS** informationf cell global identity informationf or routing area information associated with a mobile subscriber. Additionally, the Mobile Equipment 554 may also communicate using other packet...numeral 600. It should be understood, as described with reference to a preferred embodiment of the present invention, that these nodes could be adapted to **gather** **realtime information** about the subscribed user. This could be achieved by ~~programming~~ the network nodes so that they could monitor ~~realtime~~ subscriber events and activities and provide...the telecommunications network.

8 The mobile equipment according to claim 6,  
10 further comprising a **global positioning system (GPS)** unit, and wherein the location indication comprises GPSrelated data.

11 The mobile equipment according to claim 9.  
wherein said **data** packet is **transmitted** by said transmitter towards a service control server (SCS), the SCS being connected to at least one of a portal and an emergency service node.

12 A method for providing notification from a mobile equipment, comprising the steps of:  
establishing at least one number in the **mobile** equipment;  
**detecting** call initiation at the mobile equipment;  
ascertaining a destination number of the call initiation;  
determining whether the destination number corresponds to the at least one...according to claim 17, wherein the location indication is extracted from the notification.

19 The method according to claim 17, wherein the location indication is **received** from a **mobile positioning** center after the notification is **received** from the **mobile** equipment.

18/TI,PN,PD,PY,K/2 (Item 2 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

EXPEDITED LOCATION DETERMINATION IN ANALOG SERVICE AREAS  
DETERMINATION D'EMPLACEMENTS EXPEDIEE DANS DES ZONES DE SERVICES  
ANALOGIQUES

Patent and Priority Information (Country, Number, Date):

Patent: WO 200265794 A1 20020822 (WO 0265794)

Publication Year: 2002

English Abstract

A mobile terminal uses stored **GPS** data to expedite position determination (Fig. 1) when placing emergency calls. The **mobile** terminal **receives** supporting **GPS** data such as almanac and ephemeris information from a supporting digital wireless network when digital service is available. When operating in an analog service area where **GPS** data is not available from the analog wireless network, the mobile terminal uses **GPS** data previously received in a digital service area, unless that data is too old to be useful. Additionally, the mobile terminal can periodically update its stored **GPS** data while in standby in an analog service area, based on receiving the needed data directly from available **GPS** satellites. The mobile terminal or digital wireless network may automatically update **GPS** data stored in the mobile terminal based on the age of stored data, or based on the probability of moving into an analog service area.

2 The method of claim 1 wherein updating said stored position assistance data when operating in said digital service area by acquiring said updated...

...when said mobile terminal operating in a digital service area is likely to move into an analog service area; and updating said stored position assistance **data based** on said prediction.

8 The method of claim 7 wherein said maintaining said aging values for individual components comprising said stored position assistance data comprises: monitoring a time since a last download of a selected one of said individual components of said stored position assistance **data**; and **downloading** updated **information** for said selected one of said individual components of said stored position assistance **data based** on said time since last download.

13 The method of claim 1 wherein updating said stored position assistance data when operating in said analog service area by acquiring said updated assistance information from said supporting **GPS** satellites comprises: identifying at least one **GPS** satellite expected to be available sometime within a defined window of time; monitoring for a signal from said at least one **GPS** satellite during said defined

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window of time;

**downloading** satellite **information** from each of said at least one **GPS** satellites

when said signal becomes available; and

updating said stored position assistance **data based** on said **downloaded** satellite **information**.

18/TI,PN,PD,PY,K/3 (Item 3 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

LOCATION OF A MOBILE STATION IN A TELECOMMUNICATIONS SYSTEM  
LOCALISATION D'UNE STATION MOBILE DANS UN SYSTEME DE TELECOMMUNICATION  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200152569 A1 20010719 (WO 0152569)  
Publication Year: 2001

#### Claim

... information may include a QoS (Quality of service) estimate (e.g. regarding achieved accuracy). When geographical coordinates are used as the location information, the **estimated** location of the **mobile** station may be a fixed geographical location within the serving cell (e.g. location of the serving node-B), the geographical centre of the serving...by the respective base station (Node B or BTS) 4, 5 and 6. More particularly, each base station is arranged to transmit signals to and **receive** signals from the **mobile** station (MS, UE) 7. Likewise, the mobile station 7 is able to transmit signals to and receive signals from the respective base station. The mobile...mobile station is currently located. Additionally, the geographical location may be obtained from a reliable external source, e.g. from the well known satellite based **GPS (Global Positioning System)**. More accurate location information can be obtained through a differential **GPS**. In addition to the **GPS**, any other similar system capable of providing reliable location information can be used for this. There are several other proposals for providing location information that...service area identifier is based on measurements made to determine the signal power or strength between the mobile station and the base stations that the **mobile** station may **receive**. After the measurements, the service area identifier associating with the strongest signal is preferably selected. If the selection of the service area identifier is based...g. when the mobile station is switched on). This is done e.g. by measuring and calculating a signal power parameter for each cell the **mobile** station may **receive**, whereafter the cell with the best power value is selected. The reselection of the cell may be done by calculating an additional parameter. The cell...estimate and to map it to the Service Area parameter, parameters such as the best reference signal, a Round Timing Trip (RTT) between Base Station, **Mobile** Station, Location **Measurement** Unit (LMU), Reference Node Positioning Elements, , as well as antenna beam direction parameter may be utilised in association with the related cell identifier(s).

The last term depends on the error correction due to the **received power** variation, MS **mobility**, and so forth. The controller or the LCS node may use a reference signal link budget based cell range (radius) estimate in conjunction with the...then the location of the MS should be within an interaction area between neighbouring radio coverage hyperbolas. In addition to the latest cell

identifier (LCS **estimates**), MS **speed** and direction can be utilised to map the cell identifiers to the corresponding coverage area and/or service areas. Moreover, the radio network planning data, BS/MS reference **power** (transmitted and **received**), cell and/or base station layout, assistance data in the RNC/BSC/NMS (e.g. LCS **data**, **transmit** power control **data**, etc.) may be utilised to map the cell identifier to the cell coverage and service area. The mapping may be done at the access network...

18/TI,PN,PD,PY,K/4 (Item 4 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

## WIRELESS LOCATION SYSTEM

## SYSTEME DE LOCALISATION SANS FIL

Patent and Priority Information (Country, Number, Date):

Patent: WO 200069198 A1 20001116 (WO 0069198)

Publication Year: 2000

## Claim

... a receiver. It can be a regular Cellular Telephone (CT), a PCS (Personal Communication Systems) telephone, a cordless telephone, a Personal Digital Assistant (PDA), a **GPS** receiver, or a combination thereof. It can be a radio tag or a wireless telephone that does not contain the audio portion of the telephone. It can also be a transmitter that transmits periodically over a given channel, or a receiver that receives Radio signals, or both. **Mobile Receiver** (MR): is a device, which can be portable or fixed, that can consist of a receiver alone or both a receiver and a transmitter. It can be a regular Cellular Telephone (CT), a PCS (Personal Communication Systems) telephone, a cordless telephone, a Personal Digital Assistant (PDA), a **GPS** receiver, or a combination thereof. It can be a radio tag or a wireless telephone that does not contain the audio portion of the telephone...

...In fact, the MSs can be mobile as long as their estimated location is known in time. Host: is a central processor to process all **positional** information that are **received** from the MSs and to transmit monitoring orders to all MSs. The host can also be responsible for location services such as fleet management, location...paging the CT, acknowledging a registration, etc. Reverse Traffic Channel is the channel assigned by the BS to the CT, which the CT uses to **transmit** voice **data**, messages, and other data to the BS, during a CDMA call. 1 5 Forward Traffic Channel: is the channel assigned by the BS to the CT on which the BS will **transmit** voice **data**, messages, or other data to the CT during a CDMA call. Pilot Channel: is the channel on which the BS broadcasts the pilot signal, which...1) is provided to the RF synthesizer. A preferred source for the reference signal is one that is common to all MSs such as a **Global Positioning Systems** (**GPS**) signal, or one that is derived therefrom. In Fig. 1 0, the graph has two peaks, at 3 O' and 15 O'. This indicates that...

...some interface (1410) to the Host (1411). 1401 - 1409 comprise a MS. The Host comprises one or more computers that receive information from MSs and **estimate** the location, **speed**, and DOT of a CT. Although not explicitly shown on Figure 14, the Host also sends information and orders to the MSs via the interface...JI 0 STD-008). The received signal can be decoded according to these published standards. Certain messages contain information which can be used to **estimate** the **mobile** location.  
3 1 Pilot Strength Measurement Message  
The Pilot Strength Measurement message is transmitted by the CT over the reverse traffic channel, and for one or more pilots, contains the following information PILOT-PN-PHASE This identifies the TOA of the pilot signal **measured** at the **mobile** to a resolution of one chip. The pilot PN phase offset (in units of 64 chips) can be determined from this number, in order to...To - Ati,k) is neither periodic nor cyclostationary (except

between chips). On the other hand,  $p(t - \tau_{i,k} - \tau_{o,k})$  is stationary: in GPS, in both TDMA standards: IS-136 and GSM, and in wideband CDMA (3G CDMA). Solution III: When  $\tau_{i,k}$  is estimated indirectly based on the phases...the radio frequency (RF) channels are spaced by 1.23 MHz which is a comparable BW relative to systems designed primarily for location such as **Global Positioning Systems (GPS)** with a BW of 1MHz over Standard Positioning Services (SPS) channels. The preferred embodiment of location system, including host, according to the current patent application is network-based while GPS is handset-based. In GPS, the location system initially uses a conventional sliding correlator (similar to Solution II) in the handset to obtain a set of pseudo-ranges (one pseudo-range per satellite) (see e.g. Spilker, J.J., "GPS Signal Structure and Performance Characteristics," **Global Positioning System**, Volume I, The Institute of Navigation, Washington D.C., 1980). The pseudo-ranges are then used in multi-lateration to obtain a position fix of the GPS receiver. A typical accuracy for a commercial one point (i.e. no differential reception) GPS receiver with 5 SPS is around 30m RMS without Selective Availability (SA). In order to achieve a comparable accuracy using IS-95 (assuming no multipath...by network configuration (PAM-SZ and MAX-CAP-SZ, respectively). A CT will transmit an Access probe (with identical message content) multiple times at varying power levels, until it receives a response from the cellular network or a specified number of probes have been transmitted.

#### **Global Positioning System (GPS);**

□ the "Russian GPS" system; and  
 TDOA location by the WLS. The WLS constructs the likelihood function  $p_{i,j}$ , (Yi I Ayij,2) by defining bins covering the expected ranges...RSSI at a MS implies a reliable TOA.



18/TI,PN,PD,PY,K/5 (Item 5 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

METHOD AND APPARATUS FOR SATELLITE POSITIONING SYSTEM (SPS) TIME  
MEASUREMENT

PROCEDE ET APPAREIL DE MESURE DU TEMPS DESTINES A UN SYSTEME DE  
POSITIONNEMENT PAR SATELLITE (SPS)

Patent and Priority Information (Country, Number, Date):

Patent: WO 200057203 A1 20000928 (WO 0057203)

Publication Year: 2000

English Abstract

...indicates when the first record (or the source from which the first record was obtained) was received at a remote entity which is typically a **mobile SPS receiver**. Various other methods of the invention are described and various apparatuses of the invention are also described. The methods and apparatuses measure time of day using SPS signals without reading the satellite **data** messages which are **transmitted** as **data** within these signals. The methods and apparatuses are suitable for situations in which the received signal level is too weak to allow reading of the...

2 A method as in claim 1 wherein said remote entity is a mobile satellite **positioning** system (SPS) **receiver** and wherein said estimated time is used to specify a range in time relative to the second record for comparing said second record to said first record.

3 A method as in claim 1 wherein said remote entity is a **mobile SPS receiver** and wherein said method further comprises:  
determining a comparison range from said estimated time when said first record was received.

4 A method as in...

...is performed exclusively at  
said entity which is a basestation.

7 A method as in claim 6 wherein said remote entity is a mobile satellite **positioning** system (SPS) **receiver**.

8 A method as in claim 7 wherein said **mobile SPS receiver** is  
a **GPS (Global Positioning System) receiver**.

9 A method as in claim 7 wherein said second record provides time of day information such that said time may be determined from said...

...when said first record  
was received at said remote entity.

22 An apparatus as in claim 21 wherein said remote entity is a mobile satellite **position** system (SPS) **receiver**.

30 An apparatus as in claim 24 further comprising a transmittor coupled

to said **data** processor, said **transmitter** for communicating to another entity.

35 A method for measuring time related to satellite data messages for use with a satellite positioning system (SPS), said method comprising: **receiving** in a **mobile SPS receiver** at least a portion of a satellite data message;

transmitting said first record to a remote basestation for the purpose of determining a time indicating when said first record was **received** at said **mobile SPS receiver**

38 A method as in claim 35 wherein said **receiving**, **determining** said first record and **transmitting** are performed in a **mobile satellite positioning system (SPS) receiver**.

39 A method as in claim 38 further comprising: receiving **GPS** signals and determining a plurality of pseudoranges; transmitting said plurality of pseudoranges.

43 A method as in claim 35 wherein said **determining** said parameter which specifies said comparison range comprises one of transmitting a first message from said **mobile SPS receiver** to said remote basestation or receiving a second message from said remote basestation.

44 A satellite **positioning system (SPS) receiver** comprising: an antenna for receiving SPS signals; a demodulator coupled to said antenna, said demodulator removing a PN code from said SPS signals;

50 In a **mobile satellite positioning system (SPS) receiver**, a method for measuring time related to satellite data messages with use with an SPS, said method comprising: **receiving** at said **mobile SPS receiver** a first record of at least a portion of a satellite data message; **receiving** at said **mobile SPS receiver** a second record of said satellite data message, wherein said first record and said second record overlap at least partially in time; determining a comparison range; comparing said first record with said second record at least in said comparison range determined from an estimated time when said first record was **received** at said **mobile SPS receiver**; determining a time from said comparing, said time indicating when said first record was **received** at said **mobile SPS receiver**.

18/TI,PN,PD,PY,K/6 (Item 6 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

THE TRAFFIC INFORMATION AND PRICING (TIP) SYSTEM  
SYSTEME DE PEAGE ET DE RENSEIGNEMENTS RELATIFS A LA CIRCULATION  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200054240 A1 20000914 (WO 0054240)  
Publication Year: 2000

#### Claim

... i.e. zero agents) comes within (falls under) the description. The words 'does not have to' are used to express that the use of a **GPS** is not necessary, but also is not excluded at all. A **GPS** can, for example, be used (as a help) to determine on behalf of the user which tariff is appropriate for the current location of the vehicle, in other words, to determine the locally valid tariff. Also, a sufficiently accurate **GPS** might be used to keep (without using a sensor on the drive shaft) an odometer and/or speedometer (tachometer). An important point is that in...

...to be given to the authority (which also includes its agents). let alone frequently. With existing traffic pricing systems based on the use of a **GPS** and/or an electronic road map, i.e., with existing positioning-based systems, (an agent of) the authority really must get frequently information about successive...cover possibility 1 and in particular also the possibilities 3 and 4. 5 In a further preferred embodiment of a method according to the invention, **information** is **gathered** about the fuel consumption of individual vehicles and the like. Or it can be collected for example to be used (also) for traffic pricing (see claim 18). Note that the **gathered information** can, if desired, be verified on reliability. In a further preferred embodiment of a method according to the invention, **information** is **gathered** about environmental pollution caused by individual vehicles. (This is claim 13.)

#### Elucidation:

This kind of **information** can be **gathered**, for example, to get a better view of the total environmental pollution caused by motorized vehicles or, for example. to use this information (also) for traffic pricing (see claim 18). Note that the **gathered information** can, if desired, be verified on reliability. In a further preferred embodiment of a method according to the invention, **information** is **gathered** about noise caused by individual vehicles.

..In a further preferred embodiment of a method according to the invention, at least part of the communication from a certain vehicle with a traffic **information gathering**, verifying and/or disseminating authority takes place via a transmitter (i.e., any means for transmitting) being present in and/or attached to that vehicle...

...In a further preferred embodiment of a method according to the invention, at least part of the means outside the vehicles for transmitting and/or **receiving** are **mobile**. (This is claim 23.)

#### Elucidation:

This claim speaks for itself, on the understanding that the meaning of mobile should be taken ambiguously, namely both in...at a certain moment

is easy and (how to do this is) well-known. The gear engaged can externally be ascertained (and thus verified) via **speed measurement(s)**, **speed change measurement(s)** and **directional noise production measurement(s)**. while also reliable information about the vehicle type is required. How the number of revolutions per minute and...also against writing) think of, for example. meter readings and/or cryptographic keys. In a further preferred embodiment of a method according to the invention. **data** are **gathered** about certain performances of vehicles actually realized in practice under certain usage conditions and these **gathered data** are worked up, or not, into information about certain performances of certain groups of vehicles under certain usage conditions. (This is claim 39.)

...when changing from summer to winter time or vice versa) automatically. Because speed is a quantity derived from the distance traveled and the time. the **measurement** of the **speed** in a vehicle can be done with extra accuracy if it is known by how much its clock speed deviates. Further it is possible to...example. a tariff change when entering a different tariff zone (area) can also be set manually or be done automatically with the aid of a **GPS**.

### .3 Automatic respecting of official speed limits

We propose to implement the equipment for cruise control in such a way that it is able to...being transmitted from each vehicle. The said identification cannot only be used for traffic pricing, but, if desired, also for other applications, like for example **speed measurements** at certain places (locations). In the next chapter we will first digress somewhat on (problems with) the identification of persons and objects, before we will...privacy friendly by means of semi-identifications. We take as example an integrated traffic information system for traffic pricing and traffic control, whereby the vehicles **receive** messages (about **speed** limits, traffic jams, traffic delays, and the like) and transmit messages themselves. Sav, transmit themselves messages with semi-identifications in it for the benefit of...

...compared speeds should also concern the same vehicle. For more information about this we refer to section 1.1

If the equipment needed for independent **speed measurement** is more expensive than an additional transmitter, then the approach of verifications by means of speed data may, in general, be less attractive than the one using position data. But even if so, then yet the approach based on **speed measurements** may be more advantageous for mobile checkpoints (checking stations) for the sake of verifications by surprise. Furthermore, this approach offers the possibility of verifications from...

18/TI,PN,PD,PY,K/7 (Item 7 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

DIRECTED RETRY METHOD FOR USE IN A WIRELESS LOCATION SYSTEM  
PROCEDE DE REPRISE DIRIGEE, UTILE DANS UN SYSTEME DE LOCALISATION D'UN  
TELEPHONE SANS FIL

Patent and Priority Information (Country, Number, Date):

Patent: WO 200041417 A1 20000713 (WO 0041417)

Publication Year: 2000

Claim

... or like system that is not served by its own Wireless Location System.

8 A Wireless Location System as recited in claim 7, wherein a  
**mobile** switching center (MSC) **detects** the call origination  
occurring from the wireless transmitter using the second modulation  
method, and commands the wireless transmitter to retry the call using the  
first...

WIRELESS TRANSMITTER TLP SENDS DEMODULATED DATA AND  
INITIATES TRANSMISSION WHETHER TO BEGIN PHASE CORRECTION AND AMPLITUDE  
ON EITHER CONTROL LOCATION PROCESSING CORRECTION PARAMETERS TO EAUH  
CHANNEL OR VOICE S65 SECOND SCS...440. 102, 515, 521, 551, 564  
Documentation searched other than minimum documentation to the extent  
that such documents are included in the fields searched Electronic  
**data base** consulted during the international search (name of  
**data base** and, where practicable, search terms used'  
C. DO(AINIENTS CONSIDERED TO HE RELEVANT  
Category\* Citation of' document, with indication, where appropriate, of  
the relevant passages...

18/TI,PN,PD,PY,K/8 (Item 8 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

METHOD FOR IMPROVING THE WIRELESS LOCATION SYSTEM  
PROCEDE D'AMELIORATION D'UN SYSTEME DE LOCALISATION DE TELEPHONE SANS FIL  
Patent and Priority Information (Country, Number, Date):  
Patent: WO 200040993 A1 20000713 (WO 0040993)  
Publication Year: 2000

#### Claim

... use in a Wireless Location System in locating a mobile transmitter, comprising the steps of(a) making a-first estimate of the location of said **mobile** transmitter, said first **estimate** being made on the basis of a first reverse transmission from the mobile transmitter; (b) causing the mobile transmitter to emit a second transmission; (c...

9 A method for use in a Wireless Location System for locating a mobile transmitter, comprising: making a first **estimate** of the **mobile** transmitter's location based upon first reverse channel transmissions from the **mobile** transmitter; **monitoring** the **mobile** transmitter for a second transmission; making a second location estimate based on the second transmission; and combining the first and second estimates to obtain an improved **estimate** of the **mobile** transmitter's location. 10. A method as recited in claim 9, wherein the Wireless Location System causes the mobile transmitter to make the second transmission...

#### WLS REQUESTS WIRELESS

FIRST WIRELESS SYSTEM TO PREVENT HAND. LOCATION PROCESSING ON  
TRANSMITTER ENGAGED IN OFF OF **WIRELESS RECEIVED RF DATA**

**TRANSMITTING** ON A **TRANSMITTER** TO ANOTHER COMMENCES

PARTICULAR RF CHANNEL RFCHANINELFOR

PREDETERMINED PERIOD

WLS AGAIN DETERMINES

WLS RECEIVES RESPONSE ...RECEIVERS RECEIVED RF DATA

SECTOR

ARE AVAILABLE To BEGIN COMPLETES

COLLECTING RF DATA

FIRST SCS RECEIVES TIME

SEGMENT OF RF DATA AND WLS COMMANDS

EVALUATES **POWER**, SNR AND NARROWBAND **RECEIVERS**

MODULATION CHARACTERISTICS, TO MUNE TO CELL SITE,

... AND, SECTOR AND RF CHANNEL

IF POWER OR SNR IS BELOW CURRENTLY IN USE BY IST

PREDETERMINED THRESHOLD...

Electronic **data base** consulted during the international  
search (name of **data base** and, where practicable, search  
terms used)

18/TI,PN,PD,PY,K/9 (Item 9 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

METHOD AND SYSTEM FOR AIDING **GPS** RECEIVERS VIA A CELLULAR OR PCS  
NETWORK

PROCEDE ET SYSTEME PERMETTANT D'AIDER DES RECEPTEURS **GPS** VIA UN  
RESEAU CELLULAIRE OU SCP

Patent and Priority Information (Country, Number, Date):

Patent: WO 200010028 A1 20000224 (WO 0010028)

Publication Year: 2000

#### English Abstract

...there is disclosed a system for determining location of a mobile station. The mobile station includes a transceiver operating in a wireless network and a **GPS** receiver. The system includes a wireless network control system including **GPS** receivers for obtaining ephemeris data. The control system develops assistance information from the ephemeris **data** and **transmits** the assistance **information** to the mobile station via the wireless network. The assistance information represents range at a fixed location in the wireless network in proximity to the mobile station at a select time, and derivatives of the range, relative to plural select satellites in the **GPS**. The **mobile** station utilizes **received** assistance information for searching the composite received signals from the plural select satellites in the **GPS** to measure a code phase for plural ones of the select satellites in the **GPS** and returning the measured code phases to the wireless network control system via the wireless network. The wireless network control system computes location of the...

#### Claim

I The method of assisting a **global positioning system (GPS) receiver** to make **positioning** measurements, the **GPS receiver** being integrated in a mobile station including a transceiver operating in a wireless network, comprising the steps of: transferring assistance information from the wireless network...

...the wireless network in proximity to the mobile station at a select time, and derivatives of the range, relative to plural select satellites in the **GPS**; and operating the **mobile** station to utilize **received** assistance information to search composite received signals from the plural select satellites in the **GPS** to measure a code phase for plural ones of the select satellites in the **GPS**, the measured code phases representing range of the mobile station relative to the plural ones of the select satellites.

10 The method of determining location of a mobile station including a transceiver operating in a wireless network and a **global positioning system (GPS) receiver**, comprising the steps of: transferring assistance information from the wireless network to the mobile station, the assistance information representing range of a fixed location in the wireless network in proximity to the mobile station at a

select time, and derivatives of the range,  
relative to plural select satellites in the **GPS**;  
operating the **mobile** station to utilize **received** assistance  
information to search composite received signals from the plural select  
satellites in the **GPS** to measure a code phase for plural ones of  
the select satellites in the **GPS** and returning the measured  
code phases to the wireless network; and  
computing location of the mobile station in the wireless network  
utilizing the fixed location...

15 The method of claim 1 I wherein the **GPS** satellites  
transmit navigation

messages with 20-msec. bit periods and wherein the transferring step  
includes the step of representing range as a bit phase observed at the  
fixed location at the select time.

16 The method of claim 15 wherein the select time is coincidental with  
a 20-msec. epoch of **GPS** time.

19 The method of claim 10 wherein the **mobile** station determines a  
**measurement** time representing when the code phase is measured for  
one of the select satellites and the measurement time is returned to the  
wireless network.

25 A system for determining location of a mobile station, the mobile  
station including a transceiver operating in a wireless network and a  
**global positioning**  
**system (GPS) receiver**, comprising:

a **wireless** network control system including **GPS** receivers  
for obtaining

ephemeris data, the control system developing assistance information from  
the ephemeris **data** and **transmitting** the assistance  
**information** to the mobile station via the wireless network, the  
assistance information representing range of a fixed location in the  
wireless network in proximity to the mobile station at a select time, and  
derivatives of the range,  
relative to plural select satellites in the **GPS**;

the mobile station including means utilizing received assistance  
information for searching composite received signals from the plural  
select satellites in the **GPS** to measure a code phase for plural  
ones of the select satellites in the **GPS** and returning the measured  
code phases to the wireless network control system via the wireless  
network; and the wireless network control system including means for...

39 The system of claim 36 wherein the wireless network further  
comprises a time measuring unit (TMU) having a **GPS receiver**  
and a **wireless** transceiver monitoring the BTS to provide an  
accurate time reference to relate time in the wireless network to  
**GPS** absolute time.



18/TI,PN,PD,PY,K/10 (Item 10 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

SYSTEM AND METHOD FOR PROVIDING DIRECTIONS USING A COMMUNICATION NETWORK  
SYSTEME ET PROCEDE FOURNISSANT DES DIRECTIONS EN UTILISANT UN RESEAU DE  
TELECOMMUNICATIONS

Patent and Priority Information (Country, Number, Date):

Patent: WO 200007165 A1 20000210 (WO 0007165)

Publication Year: 2000

Claim

... and

NSC 14. Platform 24 includes a processor 38 that is coupled to a memory 40, a cellular transceiver 42, a modem 44, a pager **receiver** 46, a **global positioning satellite (GPS)** device 48, an audio interface 50, a power controller 52, a dual tone multifrequency (DTMF) decoder/generator 54, and a clock 56.

Processor 38 comprises...

...buttons 36 at interface 22 and, in one embodiment, generates an appropriate service message 58 for communication to NSC 14. In another operation, processor 38 **gathers** various pieces of **information** from sensors 26, memory 40, cellular transceiver 42, pager receiver 46, **GPS** device 48, or other sources, and integrates this information into a data report for transmission over network 18. The data report can be time stamped...when the call switched to voice mode, switched back to data mode, and/or when the call was completed. Each entry may also include the **GPS** position and current SID. Furthermore, failed call attempts may be logged with the reason for the failure. In one embodiment, memory 40 has enough storage capacity for at least one hundred communication statistics reports. These statistics reports may be **transmitted** during any **data** handshake with NSC 14. Once the statistics reports have been sent to NSC 14, they may be deleted from memory

particular NAM in a paging signal allows transceiver 42 to receive calls using multiple NAMs without requiring the transceiver to register each NAM simultaneously. **GPS** device 48 generates information on the geographic location of mobile unit 12. In one embodiment, **GPS** device 48 generates latitude, longitude, and altitude position information at suitable intervals defined by the interval codes stored in configuration data 80. In particular, a plurality of orbiting satellites, represented by satellites 49, **transmit** pseudorange **information** and have determinable orbits such that the earth location of mobile unit 12 may be ascertainable by triangulation of these pseudoranges, or by other well...by an internal battery, contained in the power supply, for maintaining accurate clock time during periods when mobile unit 12 is not connected to vehicle **power**.

**Sensors** 26 may include engine sensors, trailer sensors, personal medical sensors, airbag deployment sensors, alarms, temperature gauges, accelerometers, security **sensors**, onboard **positioning sensors**, or other **sensors** that generate information on the status or condition of mobile unit 12, or its operator. Actuators 28 may include security alarm devices, door lock/unlock...

...information with

the various components of mobile unit 12. In particular, device 30 interfaces with processor 38 using bus 32 and appropriate interfacing software to **download** and upload **data** regarding user interface 22, platform 24, sensors

26 actuators 28, or any other component of mobile unit

12 In one embodiment, device 30 uses a...levels of menu options associated with menu structures 84 using interface 22 to access various components of mobile unit 12. In particular, an operator of **mobile** unit 12 may **monitor**, control, configure, or activate any of the components of platform 24, sensors

In one embodiment, this

**information** may be **transmitted** using voice paths and DTMF techniques. In another embodiment, this **information** may be **transmitted** as a **data** message using data network 20. The selected service center 16 determines the directions in response to the origination and destination location information at step 614..

18/TI,PN,PD,PY,K/11 (Item 11 from file: 349)  
 DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

FLEET MANAGEMENT SYSTEM AND METHOD  
 SYSTEME ET PROCEDE DE GESTION DE PARC AUTOMOBILE  
 Patent and Priority Information (Country, Number, Date):  
 Patent: WO 9945519 A2 19990910  
 Publication Year: 1999  
 aim

... of some acronyms and abbreviations that may be used in this present specification:  
 API Application Program Interface  
 AVL Automatic Vehicle Location  
 CAD Computer Aided Dispatching  
**GPS Global Positioning System**  
 IPC Inter-Process Communication  
 MCU Mobile Control Unit  
 MDS Mobile Data Suite  
 MDT Mobile Data Terminal  
 Mic Mobile Information Center  
 MIC-RUN MIC Database Runtime...called a fleet  
 mobile data suite (MDS) 611 includes a microprocessor-controlled circuit 700 coupled to a **GPS** navigational **sensor** 702, a **mobile** radio modem 704, and a specialized mobile radio (SMR) 706 operational in the 800-900 Mhz frequency range, as illustrated by Fig. 3. The fleet MDS 611 continuously compiles latitude and longitude position data from the **GPS sensor**. Latitude and longitude position data is periodically **transmitted** to the data acquisition system 612.  
 - The mobile position block 616 processes vehicle location information typically on a UNIX based computer. Other computer such as Windows NT. DOS...limited to this radio. Cellular telephones, wireless "totem pole" communication, pagers. and other wireless communication techniques can also be used. The data acquisition system 612 **receives** latitude and longitude position data from the fleet MDS 611, attaches a vehicle identifier to the navigational position data, and **transmits** the data block 613 (e.g., vehicle identification, latitude, longitude) to the mobile position database 614. Vehicle position is defined in terms of a latitude and longitude...  
 ...nearest matching street segment, its street name and block number range, and the nearest cross-section of major streets, and its street name 640 are **transmitted** to the mobile information data process 630. The mobile information data  
 I 0  
 process 630 attaches the street text information to the mobile position information and sends this data...  
 ...the fleet process 644.  
 The fleet process 644, a UNIX based process or the like, is the user interface display process. The fleet process 644 **receives** **mobile position** information and street text information from the mobile information data process 630. In addition, the fleet process 644 accesses the raster database 645 through the...easily understood by the dispatcher or fleet manager.  
 I  
 The first database, the mobile position database 614, is a positional

information database for storing vehicle **position** information **received** from the navigation systems. Navigational **data** **transmitted** from systems such as LORAN and **GPS (Global Positioning System)** is stored into data records indicating the latitude and longitude of a particular vehicle during a predetermined time interval. The DAQ process 612 is used to format **position** data **received** from the navigational system into the mobile position database 614. The vehicle identification is used as locator field to access the database for a particular...645 and displayed adjacent to the first and second axes to form a raster map of a first predefined area. Mobile position data from the **GPS** navigation system corresponding to vehicle latitude and longitude position during a predetermined time interval is extracted from the mobile position database 614. A user locatable...simplified illustration and should not limit the scope of the claims as defined herein. The block diagram provides functions for accessing mobile information center (MIQ **databases** and **servers** to handle sub-systems such as an automatic vehicle location (AVL) system, a two-way messaging (TWM) system, a computer aided dispatch (CAD) system, and...

18/TI, PN, PD, PY, K/12 (Item 12 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

## VEHICLE INFORMATION SYSTEM

## SYSTEME D'INFORMATION POUR VEHICULE

Patent and Priority Information (Country, Number, Date):

Patent: WO 9909374 A2 19990225

Publication Year: 1999

## Claim

... vehicle comprising:

receiving a reference signal from a positioning system;  
computing position data related to the location of the vehicle using the received reference signal;  
**transmitting** the position data to a server;  
**receiving** from the server **position** correction data;  
determining estimated coordinates of the vehicle including combining data computed from the received reference signal and the position correction data.

12 The method...

...determining the estimated coordinates, including combining the position data and the position correction data, are performed repeatedly for an interval of time using the same **received position** correction data, and the method further comprises, subsequent to the interval of time, ...vehicle using the position data without using the correction data.

2 5 13. The method of claim 12 wherein:

receiving the reference signal from a **positioning** system includes **receiving** signals from a plurality of positioning satellites;  
computing the position data includes computing a range measurement to each of the positioning satellite;  
**receiving** the **position** correction data includes **receiving** range correction data for range measurements to the positioning satellites; and  
combining the position data and the position correction data includes combining the range measurements and the range correction data.

14 The method of claim 12 wherein:

**receiving** the **position** correction data includes **receiving** a location correction; and  
combining the position data and the position correction data includes computing uncorrected coordinates from the position data and adding the location...

16 An in-vehicle navigation system comprising:

a **positioning** system **receiver** for **receiving** reference signals from a positioning system;  
a wireless communication interface for accepting

data signals from a server; and  
a processor coupled to the positioning system and to the wireless communication system, wherein the onboard computer is programmed to perform the functions of accepting reference data from the **positioning system receiver**,  
determining **position** data from the reference data,  
providing the position data to the wireless communication interface for transmission to the server, accepting position correct data from the...

...the  
specification including coordinates of the first location;  
determining when the vehicle is at the first location;  
computing first position data using a reference signal **received** from a **positioning** system at the time at which the vehicle was determined to be at the first location;  
location;  
determining when a vehicle is at the first location;  
computing first position data using a reference signal **received** from a **positioning** system at the time at which the vehicle was determined to be at the first location;

21 A vehicle navigation system comprising:  
a **positioning system receiver** for **receiving** reference signals from a positioning system;  
a first storage for holding a specification of a first location, the specification including coordinate of the first location;  
a second storage for holding position correction data;  
a vehicle sensor for sensing motion of the vehicle;  
and  
a processor coupled to the **positioning system receiver**, to the first and the second storage, and to the vehicle sensor, and programmed to perform the functions  
20 of  
determining when the vehicle...

...data related to the  
location of the vehicle at the time at which the vehicle was determined to be at the first location from the **positioning system receiver**  
computing **position** correction data using the first reference data and the coordinates of the first location, and  
determining coordinates of the vehicle at a second time subsequent...

26 A vehicle tracking system comprising:  
a first position estimator including a **positioning system receiver**, for determining a first estimate of the vehicle's location determined using information **received**

from the **positioning system receiver**;  
storage for a planned route;  
a second position estimator coupled to a vehicle  
motion sensor and to the storage for the planned route,  
for determining...

...an in-vehicle map database to an in  
vehicle system, wherein the in-vehicle database includes  
data related to valid location specifications for  
accessing a **server map database** at a **server** system;  
accepting a location specification;  
validating the location specification using the in  
vehicle map database; and  
transmitting the validated location specification  
from the in-vehicle system to the server system.

30 The method of claim 29 further comprising:  
providing the **server map database** to the **server**  
system;  
receiving the validated location specification at  
the server system; and  
accessing the **server map database** using the received  
validated location specification.

31 The method of claim 30 further comprising:  
determining a route to the specified location; and  
transmitting the determined...

...a  
positioning system, and recording the determined position  
data and a time associated with the position data;  
retrieving recorded position data and the associated  
time;  
**transmitting** the retrieved position **data** and time to  
a server; and  
receiving an estimated location from the server.

35 A method for vehicle guidance comprising:  
receiving at the vehicle a...

...35 further comprising:  
establishing a wireless communication channel with  
the server;  
transmitting a specification of the destination  
location over the wireless communication channel;  
terminating the **wireless** communication channel after  
**receiving** the planned route.

...each of a plurality  
of segments of a road network;  
for each detected segment, logging traffic-related  
data, including data related to the vehicle's **speed** on  
the **detected** segment; and  
**transmitting** the logged **data** to a server

53 A method for configuring a vehicle navigation  
system comprising:  
providing a **server map database** to a **server**, the

22/TI,PN,PD,PY,K/1 (Item 1 from file: 348)  
DIALOG(R)File 348:(c) 2003 European Patent Office. All rts. reserv.

A system and method for the acquisition of automobile traffic data through wireless networks

System und Verfahren zur Erfassung von Fahrzeugdaten über ein Funkkommunikationsnetz

Systeme et methode d'acquisition de donnees de trafic par des reseaux de communication sans fil

PATENT (CC, No, Kind, Date): EP 1209647 A1 020529 (Basic)

- ...CLAIMS server; and  
analyzing the traffic data to determine the traffic conditions.
2. The method of claim 1, wherein determining traffic conditions further comprises:  
locating each **mobile** communication device; and  
**calculating** the velocity of the mobile communication device.
  3. The method of claim 2, wherein calculating the velocity comprises:  
**receiving** the traffic data from the mobile communication device at a first time interval and at a second time interval.
  4. The method of claim 1...
- ...having stored thereon additional instructions, said additional instructions when executed by a computer for determining traffic conditions, cause said computer to further perform:  
locating each **mobile** communication device; and  
**calculating** the velocity of the mobile communication device.
15. The computer-readable medium of claim 14 having stored thereon additional instructions, said additional instructions when executed  
...
- ...server.
19. A mobile device comprising:  
a memory;  
a microprocessor connected to the memory; and  
a transmitter connected to the microprocessor and memory, wherein the **transmitter** provides motion **data** to a traffic server that determines traffic conditions.
  20. A system comprising:  
an automobile traffic **server**;  
a **database** of automobile traffic connected to the traffic **server**;  
a **database** of previous raw traffic data sets connected to the traffic **server**; and  
a **database** of cell locations connected to the traffic server, wherein the automobile traffic server determines traffic conditions by analyzing the automobile traffic database, the previous raw...
- ...time period a second signal characteristic; and  
determining a velocity from the first and second averaged signal characteristics.
23. A method for use with a **mobile** communication device, comprising:  
**receiving** a request from a traffic server for traffic data; and  
providing the traffic data to the traffic server.



30jan03 13:39:11 User267149 Session D554.1

SYSTEM:OS - DIALOG OneSearch

File 2:INSPEC 1969-2003/Jan W3  
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removal, customized scheduling. See HELP ALERT.  
File 6:NTIS 1964-2003/Jan W4  
(c) 2003 NTIS, Intl Cpyrght All Rights Res  
\*File 6: Alert feature enhanced for multiple files, duplicates  
removal, customized scheduling. See HELP ALERT.  
File 8:Ei Compendex(R) 1970-2003/Jan W3  
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\*File 8: Alert feature enhanced for multiple files, duplicates  
removal, customized scheduling. See HELP ALERT.  
File 34:SciSearch(R) Cited Ref Sci 1990-2003/Jan W4  
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\*File 34: Alert feature enhanced for multiple files, duplicates  
removal, customized scheduling. See HELP ALERT.  
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File 94:JICST-EPlus 1985-2003/Nov W3  
(c)2003 Japan Science and Tech Corp(JST)  
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Dec  
(c) 2003 The HW Wilson Co.  
File 144:Pascal 1973-2003/Jan W3  
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File 305:Analytical Abstracts 1980-2003/Jan W2  
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\*File 305: Alert feature enhanced for multiple files, duplicate  
removal, customized scheduling. See HELP ALERT.  
File 315:ChemEng & Biotec Abs 1970-2002/Dec  
(c) 2002 DECHEMA

Set	Items	Description
S1	4	AU=(VOCK, C? OR VOCK C?)
S2	40	AU=(DARCY, D? OR DARCY D?)
S3	12	AU=(BODKIN, A? OR BODKIN A?)
S4	15	AU=(YOUNGS, P? OR YOUNGS P?)
S5	913	AU=(LARKIN, A? OR LARKIN A?)
S6	35	AU=(FINBERG, S? OR FINBERG S?)
S7	2676	AU=(MARSHALL, C? OR MARSHALL C?)
S8	0	S5 AND S7
S9	15	S7 AND (DROP(W)DISTANC???? OR RATE??? OR SPEED??? OR AIRTI- M????? OR AIR(W)TIM????? OR MOBIL????????) (3N) (DETECT? OR SENSE? OR SENSING OR ANALYZ? OR ANAZYS? OR ESTIMAT? OR CALCULAT? OR MEASUR? OR MONITOR?)
S10	8	RD (unique items)
S11	3	(S1 OR S2 OR S3 OR S4 OR S5 OR S6) AND ((DROP(W)DISTANC???? OR RATE??? OR SPEED??? OR AIRTIM????? OR AIR(W)TIM????? OR MO- BIL????????) (3N) (DETECT? OR SENSE? OR SENSING OR ANALYZ? OR AN- AZYS? OR ESTIMAT? OR CALCULAT? OR MEASUR? OR MONITOR?))
S12	1	RD (unique items)
S13	2	(S1 OR S2 OR S3 OR S4 OR S5 OR S6) AND (ATHLET???? OR SPOR- TSM?N OR SPORTS()M?N OR USER?? OR ATHLET?????? (3N) PERFORM????- ????)
S14	2	RD (unique items)

12/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5111054 INSPEC Abstract Number: A9524-7460G-010

Title: Quantum depinning in layered superconductors with defects produced by irradiation

Author(s): Bulaevskii, L.N.; Larkin, A.I.; Maley, M.P.; Vinokur, V.M.

Author Affiliation: Los Alamos Nat. Lab., NM, USA

Journal: Physical Review B (Condensed Matter) vol.52, no.13 p. 9205-8

Publication Date: 1 Oct. 1995 Country of Publication: USA

CODEN: PRBMDO ISSN: 0163-1829

U.S. Copyright Clearance Center Code: 0163-1829/95/52(13)/9205(4)/\$06.00

Language: English

Abstract: We consider Magnus force vortex dynamics in superclean superconductors and **calculate** the quantum tunneling **rate** of the pancake vortex creep from the pinning sites in the nondissipative limit. The consideration is based on the exact representation of the one-particle wave functions in the magnetic and electric fields. The obtained results are compared to the experimental data and the possibility of the observation of the discrete structure of the pinned pancake energy levels is discussed.

Subfile: A

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01/30/2003

13:58

09/992,966

14/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

02307306 INSPEC Abstract Number: B84049947

Title: Son of Nicad conditioner

Author(s): **Finberg, S.**

Journal: 73 Amateur Radio's Technical Journal no.286 p.36-40

Publication Date: July 1984 Country of Publication: USA

CODEN: ARTJD8 ISSN: 0745-080X

Language: English

Abstract: The author explains how he modified the conditioner to create an intelligent discharger. It knows when to stop and informs the **user** how much time it took.

Subfile: B

14/3,AB/2 (Item 1 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

06255762

E.I. No: EIP03017300911

Title: Steam system improvements at Dupont Automotive Marshall Laboratory

Author: **Larkin, Andrew W.**

Corporate Source: Trigen-Philadelphia Energy Corp., Philadelphia, PA  
19146, United States

Source: Energy Engineering: Journal of the Association of Energy  
Engineering v 100 n 1 2003. p 7-16

Publication Year: 2003

CODEN: EENGDO ISSN: 0199-8595

Language: English

Abstract: The steam system improvements at Dupont Automotive Marshall Laboratory are presented. Dupont's aboveground and buried steam distribution piping system supply steam to several buildings. The Dupont Marshall Lab scientists suggested that the steam distribution at low pressure reduces the heat transfer losses. It was also suggested that if all industrial steam **users** evaluate their steam systems and complete all modifications that provided an acceptable payback, then the reliance on fossil fuel import from other countries can be reduced. (Edited abstract) 3 Refs.

10/3,AB/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

7241489 INSPEC Abstract Number: B2002-05-4200-001  
Title: Assessing the impact of the space radiation environment on parametric degradation and single-event transients in optocouplers  
Author(s): Reed, R.A.; Poivey, C.; Marshall, P.W.; LaBel, K.A.; **Marshall, C.J.**; Kniffin, S.; Barth, J.L.; Seidleck, C.  
Author Affiliation: NASA Goddard Space Flight Center, Greenbelt, MD, USA  
Journal: IEEE Transactions on Nuclear Science Conference Title: IEEE Trans. Nucl. Sci. (USA) vol.48, no.6, pt.1 p.2202-9  
Publisher: IEEE,  
Publication Date: Dec. 2001 Country of Publication: USA  
CODEN: IETNAE ISSN: 0018-9499  
SICI: 0018-9499(200112)48:6:1L:2202:AIJR;1-S  
Material Identity Number: I047-2002-001  
U.S. Copyright Clearance Center Code: 0018-9499/01/\$10.00  
Conference Title: 2001 Nuclear and Space Radiation Effects Conference (NSREC 2001)  
Conference Date: 16-20 July 2001 Conference Location: Vancouver, BC, Canada  
Language: English  
Abstract: Assessing the risk of using optocouplers in satellite applications offers challenges that incorporate those of commercial off-the-shelf devices compounded by hybrid module construction techniques. We discuss approaches for estimating this risk. In the process, we benchmark our estimates for proton and heavy-ion induced single-event transient **rate estimates** with recent flight data from the Terra mission. For parametric degradation, we discuss a method for acquiring test data and mapping it into an estimation approach that captures all the important variables of circuit application, environment, damage energy dependence, complex response to total ionizing dose and displacement effects, temperature, and annealing.  
Subfile: B  
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10/3,AB/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6727899 INSPEC Abstract Number: B2000-11-1265D-042

Title: Single event upsets in the dual-port-board SRAMs of the MPTB experiment

Author(s): Barak, J.; Barth, J.L.; Seidleck, C.M.; **Marshall, C.J.**;  
Marshall, P.W.; Carts, M.A.; Reed, R.A.

Author Affiliation: NASA Goddard Space Flight Center, Greenbelt, MD, USA

Conference Title: 1999 Fifth European Conference on Radiation and Its  
Effects on Components and Systems. RADECS 99 (Cat. No.99TH8471) p.582-7

Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 2000 Country of Publication: USA xxviii+597 pp.

ISBN: 0 7803 5726 4 Material Identity Number: XX-2000-01698

U.S. Copyright Clearance Center Code: 0 7803 5726 4/2000/\$10.00

Conference Title: 1999 Fifth European Conference on Radiation and Its  
Effects on Components and Systems. RADECS 99

Conference Date: 13-17 Sept. 1999 Conference Location: Fontevraud,  
France

Language: English

Abstract: The in-flight data of SEUs in the devices of panels B and C of  
the MPTB experiments are presented. Ground test data for M65656 are used to  
**calculate** the SEU **rates** in this device using the calculated  
flux of ions along the orbit. The models used are CREME96, simple  
expressions derived here, and the figure of merit model. A very good  
agreement is found between these **calculations** and the observed  
**rates**.

Subfile: B

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10/3,AB/3 (Item 1 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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11218657 Genuine Article#: 625GC Number of References: 28  
Title: One hundred percent thorough quality control rescreening of  
liquid-based monolayers in cervicovaginal cytopathology (ABSTRACT  
AVAILABLE)  
Author(s): Rowe LR; **Marshall CJ**; Bentz JS (REPRINT)  
Corporate Source: Univ Utah, Sch Med, Dept Pathol, Suite 5C 124 SOM, 50 Med  
Dr/Salt Lake City//UT/84132 (REPRINT); Univ Utah, Sch Med, Dept  
Pathol, Salt Lake City//UT/84132; ARUP Labs Inc, Inst Clin & Expt Pathol  
LLC, Salt Lake City//UT/  
Journal: CANCER CYTOPATHOLOGY, 2002, V96, N6 (DEC 25), P325-329  
ISSN: 0008-543X Publication date: 20021225  
Publisher: JOHN WILEY & SONS INC, 111 RIVER ST, HOBOKEN, NJ 07030 USA  
Language: English Document Type: ARTICLE  
Abstract: BACKGROUND. Quality control (QC) of Papanicolaou (Pap) smear  
testing focuses on the identification of screening errors by 10%  
random, rapid, or thorough manual rescreening of some portion of  
negative smears. One hundred percent thorough manual rescreening has  
been reported to be the most effective method of identifying screening  
errors in conventional Pap smears (CP), but to the authors' knowledge  
no experience with this QC method has been reported for the ThinPrep  
Pap test (TP). The current study reports the **estimated** screening  
error **rate** of TP as determined by a QC program using 100%  
thorough rescreening.

METHODS. All TP samples received at the study institution between  
January. 1, 1999 and December 31, 2000 and initially screened as  
negative underwent thorough manual QC rescreening.

RESULTS. A total of 53,419 TP samples were received during the  
study period. Of these, 5368 cases (10%) initially were interpreted as  
abnormal. A total of 47,247 cases (88.4%) were rescreened.  
Abnormalities were identified in 804 additional cases, for a screening  
error rate of 13.0%. Of the 804 cases, 678 (84.3%) were atypical  
squamous cells of undetermined significance, 116 (14.4%) were low-grade  
squamous intraepithelial lesions, and 10 (1.2%) were high-grade  
squamous intraepithelial lesions. No tumors were identified on  
rescreening.

CONCLUSIONS. In the current study, 100% thorough rescreening of TP  
samples was found to result in the detection of a significant number of  
abnormalities that would have been missed by routine random 10% QC  
rescreening. The screening error rate determined by 100% thorough QC  
rescreening of TP is comparable to that reported for CP QC rescreening.



10/3,AB/4 (Item 2 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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09821368 Genuine Article#: 452FX Number of References: 18  
Title: Effect of GnRH pretreatment on reproductive performance of  
postpartum suckled beef cows following synchronization of estrus using  
GnRH and PGF(2 alpha) (ABSTRACT AVAILABLE)  
Author(s): DeJarnette JM (REPRINT) ; Day ML; House RB; Wallace RA;  
**Marshall CE**  
Corporate Source: Select Sires Inc,11740 US 42/Plain City//OH/43064  
(REPRINT); Select Sires Inc,Plain City//OH/43064; Ohio State Univ,Dept  
Anim Sci,Columbus//OH/43210  
Journal: JOURNAL OF ANIMAL SCIENCE, 2001, V79, N7 (JUL), P1675-1682  
ISSN: 0021-8812 Publication date: 20010700  
Publisher: AMER SOC ANIMAL SCIENCE, 1111 NORTH DUNLAP AVE, SAVOY, IL 61874  
USA

Language: English Document Type: ARTICLE

**Abstract:** The effect of GnRH pretreatment on estrus **detection rate**, precision of estrus, and reproductive performance of postpartum beef cows synchronized to estrus using GnRH and PGF(2 alpha) was evaluated. In Exp. 1, Angus cows (n = 87) were randomly assigned by parity, postpartum interval, and body condition score (BCS) to receive either 1) GnRH on d -7 and PGF(2 alpha), on d 0 (GP) or 2) the GP treatment and an additional injection of GnRH on d -16 (GGP). Estrus detection and AI were conducted twice daily from d -3 to d 3. At 72 h after PGF(2 alpha), all animals not previously detected in estrus were bred by AI and received a concurrent injection of GnRH (TAI). Synchronized pregnancy rates were numerically increased (P = 0.15) in cows treated with GGP (55%) compared with those on the GP treatment (44%). In Exp. 2, 1,276 spring-calving, suckled beef cows in nine herds were randomized to treatments as described for Exp. 1, except that the initial GnRH injection for the CTG;P treatment was administered on d -14. Herd affected all indicators of reproductive performance (P < 0.05). The percentage of animals detected in estrus prematurely (d -3 to d 0; 7%) was not affected by treatment. Estrus response rate was influenced by postpartum interval (< 60 vs greater than or equal to 60; 61 vs 73%; P < 0.01) and a three-way interaction of parity, BCS, and treatment (P < 0.01). Within animals with a BCS <greater than or equal to> 5.5, the GGP treatment tended to increase the detection of estrus in primiparous cows (GP vs GGP; 76 vs 91%; P = 0.11) and decrease detection in multiparous cows (GP vs GGP; 78 vs 72%; P < 0.10). However, because conception rate to TAI in animals with a BCS greater than or equal to 5.5 was greater (P < 0.05) in the GGP than in the GP group (28 vs 8%, respectively), this interaction was interpreted to represent a shift in interval to estrus induced by the GGP treatment, rather than a reduction in the synchronization of ovarian function. Conception rates of animals inseminated to an observed estrus did not differ among treatments (P = 0.15). Synchronized pregnancy rate tended (P = 0.06) to be greater in GGP- (53%) than in GP-treated animals (47%). In conclusion, pretreatment with GnRH tended to increase pregnancy rates during a 6-d synchronization period, primarily through enhanced conception rates of cows bred by TAI. In contrast to our hypothesis, GnRH pretreatment did not increase the percentage of animals detected in estrus or the precision of estrus expression.

10/3,AB/5 (Item 3 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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09779161 Genuine Article#: 448KB Number of References: 17  
Title: Incidence of premature estrus in lactating dairy cows and conception rates to standing estrus or fixed-time inseminations after synchronization using GnRH and PGF(2 alpha) (ABSTRACT AVAILABLE)  
Author(s): DeJarnette JM (REPRINT) ; Salverson RR; **Marshall CE**  
Corporate Source: Select Sires Inc,11740 US 42/Plain City//OH/43064 (REPRINT); Select Sires Inc,Plain City//OH/43064  
Journal: ANIMAL REPRODUCTION SCIENCE, 2001, V67, N1-2 (JUL 3), P27-35  
ISSN: 0378-4320 Publication date: 20010703  
Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS  
Language: English Document Type: ARTICLE  
Abstract: Fixed-time AI (TAI) after GnRH-PGF(2 alpha)-GnRH treatment is a method to achieve pregnancies in dairy herds without estrous detection. However, cows that fail to respond to the initial GnRH may have compromised TAI conception rates due to asynchronous ovarian response. This study documented the percentage of GnRH-treated Holstein cows (n = 345) in two herds that displayed estrus at an inopportune time for optimum TAI conception rate (less than or equal to 48 h post-PGF(2 alpha); premature estrus (PE)) and compared conception rates of two TAI protocols in cows that did not display PE. At biweekly herd health exams, cows diagnosed as not pregnant to a previous AI acid cows > 80 days postpartum with no AI were treated with 100 mug GnRH (day -7) and 25 mg PGF(2 alpha) (day 0). Cows detected in PE by twice-daily visual observation from day -7 to day 2 were bred by AI 8-12 h later. Cows not detected in PE were randomly assigned by parity, body condition score, and postpartum interval to receive either: (1) 100 mug GnRH at 48 h after PGF(2 alpha) and TAI 16 to 18 h later (Ovsynch); or (2) TAI at 72 h post-PGF(2 alpha) and a concurrent 100 mug GnRH injection to those cows not detected in estrus between 48 and 72 h post-PGF(2 alpha) (modified Ovsynch (MOV)). All hormone injections were im. Twenty percent (68/345) of the cows were detected in estrus before 48 after PGF(2 alpha). of which 5% (17/345) were detected in estrus before PGF(2 alpha) (less than or equal to day 0). Herd influenced the percentage of cows in the PE group (herd A versus herd B; 25% versus 14%; P < 0.05). Conception rates were not affected by treatment (PE versus Ovsynch versus MOV; 32% (21/65) versus 30% (37/125) versus 32% (47/145); P > 0.10). However, within MOV-treated cows, conception rates were greater(P < 0.05) in cows detected in estrus (46% (23/50)) compared with cows not detected in estrus (25% (24/95)). In conclusion, 20% of GnRH-treated cows displayed PE and necessitates estrous detection during this period if maximal pregnancy rates are to be achieved. Although additional estrous detection is required compared to Ovsynch, reduced cow handling and hormone usage, efficient use of expensive semen through greater conception **rates** in cows **detected** in estrus, and comparable TAI conception rates, suggests the MOV protocol may be a cost effective alternative to Ovsynch in many dairy herd reproductive management programs. (C) 2001 Elsevier Science B.V. All rights reserved.

10/3,AB/6 (Item 4 from file: 34)  
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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06506221 Genuine Article#: YX756 Number of References: 85  
Title: Molecular systematics of the Canidae (ABSTRACT AVAILABLE)  
Author(s): Wayne RK (REPRINT) ; Geffen E; Girman DJ; Koepfli KP; Lau LM;  
**Marshall CR**  
Corporate Source: UNIV CALIF LOS ANGELES,DEPT BIOL/LOS ANGELES//CA/90095  
(REPRINT); TEL AVIV UNIV,FAC LIFE SCI, INST NAT CONSERVAT RES/IL-69978  
RAMAT AVIV//ISRAEL/; UNIV CALIF LOS ANGELES,INST MOL BIOL, DEPT EARTH &  
SPACE SCI/LOS ANGELES//CA/90095; UNIV CALIF LOS ANGELES,INST GEOPHYS &  
PLANETARY PHYS/LOS ANGELES//CA/90095  
Journal: SYSTEMATIC BIOLOGY, 1997, V46, N4 (DEC), P622-653  
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Abstract: Despite numerous systematic studies, the relationships among many species within the dog family, Canidae, remain unresolved. Two problems of broad evolutionary significance are the origins of the taxonomically rich canid fauna of South America and the development in three species of the trenchant heel a unique meat-cutting blade on the lower first molar. The first problem is of interest because the fossil record provides little evidence for the origins of divergent South American species such as the maned wolf and the bush dog. The second issue is problematic because the trenchant heel, although complex in form, may have evolved independently to assist in the processing of meat. We attempted to resolve these two issues and five other specific taxonomic controversies by phylogenetic analysis of 2,001 base pairs of mitochondrial DNA (mtDNA) sequence data from 23 canid species. The mtDNA tree topology, coupled with data from the fossil record, and **estimates** of **rates** of DNA sequence divergence suggest at least three and possibly four North American invasions of South America. This result implies that an important chapter in the evolution of modern canids remains to be discovered in the fossil record and that the South American canid endemism is as much the result of extinction outside of South America as it is due to speciation within South America. The origin of the trenchant heel is not well resolved by our data, although the maximum parsimony tree is weakly consistent with a single origin followed by multiple losses of the character in several extant species. A combined analysis of the mtDNA data and published morphological data provides unexpected support for a monophyletic South American canid clade. However, the homogeneity partition tests indicate significant heterogeneity between the two data sets.

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02418814 Genuine Article#: LA130 Number of References: 31  
Title: INTERRELATIONSHIPS AMONG FLUOROMETRIC ANALYSES OF SPERMATOZOAL  
FUNCTION, CLASSICAL SEMEN QUALITY PARAMETERS AND THE FERTILITY OF  
FROZEN-THAWED BOVINE SPERMATOZOA (Abstract Available)  
Author(s): ERICSSON SA; GARNER DL; THOMAS CA; DOWNING TW; **MARSHALL CE**  
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Abstract: Cryopreserved spermatozoa from 8 bulls were used to examine the  
interrelationships among flow cytometric spermatozoal quality  
assessments and classical semen quality parameters and nonreturn  
**rate estimates** of fertility. The integrity of the sperm  
cell membrane and the functional capacity of the mitochondria were  
quantified by flow cytometry after concurrent staining with  
carboxydimethylfluorescein diacetate (CDMFDA), propidium iodide (PI),  
and rhodamine 123 (R123). For each sample a total of 10,000 stained  
spermatozoa were simultaneously quantified for the intensity of their  
green and red fluorescence. Three straws from each bull were each  
examined initially and following incubation at 37-degrees-C for 3 hours  
to assess the rate of senescence. The proportion of spermatozoa  
retaining membrane integrity and having functional mitochondria, as  
determined by CDMFDA and R123 staining, were compared with classical  
semen quality assessments (sperm motility, acrosomal status, cellular  
and head morphology, presence of vacuoles/craters and cytoplasmic  
droplets) and with fertility (nonreturn to estrus rates). For  
individual ejaculates nonreturn rates, the range was from 61.8 to  
78.8%, whereas the cumulative rates of several ejaculates for each bull  
ranged from 71.3 to 83.5%. The proportion of spermatozoa with  
functional membranes and mitochondria were positively correlated with  
the percentage of spermatozoa with normal morphology ( $r=0.82$ ;  $P=0.01$ )  
and motility after 4 hours of incubation ( $r=0.78$ ;  $P=0.02$ ), but not with  
the estimates of fertility. The actual number of spermatozoa per straw  
staining with CDMFDA and R123 after 4 hours of incubation at  
37-degrees-C was correlated with the percentage of spermatozoa with  
normal morphology ( $r=0.73$ ;  $P=0.04$ ). Multiple regression equations  
indicated that combinations of semen quality measurements could be  
useful in estimating fertilizing potential.

10/3,AB/8 (Item 1 from file: 144)  
DIALOG(R)File 144:Pascal  
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Effect of GnRH pretreatment on reproductive performance of postpartum suckled beef cows following synchronization of estrus using GnRH and PGF SUB 2 SUB alpha

DEJARNETTE J M; DAYT M L; HOUSE R B; WALLACE R A; **MARSHALL C E**

Select Sires, Inc., Plain City, OH 43064, United States; Department of Animal Sciences, The Ohio State University, Columbus 43210, United States

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Language: English

The effect of GnRH pretreatment on estrus **detection rate**, precision of estrus, and reproductive performance of postpartum beef cows synchronized to estrus using GnRH and PGF SUB 2 SUB alpha was evaluated. In Exp. 1, Angus cows (n = 87) were randomly assigned by parity, postpartum interval, and body condition score (BCS) to receive either 1) GnRH on d -7 and PGF SUB 2 SUB alpha on d 0 (GP) or 2) the GP treatment and an additional injection of GnRH on d -16 (GGP). Estrus detection and AI were conducted twice daily from d -3 to d 3. At 72 h after PGF SUB 2 SUB alpha, all animals not previously detected in estrus were bred by AI and received a concurrent injection of GnRH (TAI). Synchronized pregnancy rates were numerically increased (P = 0.15) in cows treated with GGP (55%) compared with those on the GP treatment (44%). In Exp. 2, 1,276 spring-calving, suckled beef cows in nine herds were randomized to treatments as described for Exp. 1, except that the initial GnRH injection for the GGP treatment was administered on d -14. Herd affected all indicators of reproductive performance (P < 0.05). The percentage of animals detected in estrus prematurely (d -3 to d 0; 7%) was not affected by treatment. Estrus response rate was influenced by postpartum interval (< 60 vs >= 60; 61 vs 73%; P < 0.01) and a three-way interaction of parity, BCS, and treatment (P < 0.01). Within animals with a BCS > 5.5, the GGP treatment tended to increase the detection of estrus in primiparous cows (GP vs GGP; 76 vs 91%; P = 0.11) and decrease detection in multiparous cows (GP vs GGP; 78 vs 72%; P < 0.10). However, because conception rate to TAI in animals with a BCS >= 5.5 was greater (P < 0.05) in the GGP than in the GP group (28 vs 8%, respectively), this interaction was interpreted to represent a shift in interval to estrus induced by the GGP treatment, rather than a reduction in the synchronization of ovarian function. Conception rates of animals inseminated to an observed estrus did not differ among treatments (P = 0.15). Synchronized pregnancy rate tended (P = 0.06) to be greater in GGP- (53%) than in GP-treated animals (47%). In conclusion, pretreatment with GnRH tended to increase pregnancy rates during a 6-d synchronization period, primarily through enhanced conception rates of cows bred by TAI. In contrast to our hypothesis, GnRH pretreatment did not increase the percentage of animals detected in estrus or the precision of estrus expression.

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14/TI,PN,PD,PY,K/5 (Item 5 from file: 349)  
DIALOG(R)File 349:(c) 2003 WIPO/Univentio. All rts. reserv.

GLOBALLY TIME-SYNCHRONIZED SYSTEMS, DEVICES AND METHODS  
SYSTEMES GLOBALEMENT SYNCHRONISES DANS LE TEMPS

Patent and Priority Information (Country, Number, Date):

Patent: WO 200050974 A2-A3 20000831 (WO 0050974)  
Publication Year: 2000

#### Claim

... present

invention comprises an integration of subcomponents, such as for example:  
a primary server I 00; one or more web servers II 0; a login **server**  
120; a  
competitor **database** 30; an Invitation-To-Respond/Response  
(ITR/Response)  
**database** 40; one or more competition-promoting **servers** 50;  
and a plurality  
of client machines 160. As shown in FIG. 1, each client machine 1 6 0  
includes a global synchronization unit 175...

...system. The ITR/Response

**database** 40 may also contain canonical responses for comparison with the  
actual responses generated by the competitors, as well as other  
**information** necessary for the conducting of the competition.  
The final component of system shown in FIG. I which deserves  
mention is the communications network 190. In...

popular Transmission Control Protocol/**Internet**

Protocol (TCP/IP). Thus each **server** computer connected to the  
communications network 190 will have a statically assigned Waddress,  
while  
each client machine connected thereto will have either a statically or...  
is

contained in an embedded or peripheral device known as the global  
synchronization unit (GSU) 175. The GSU at each client machine  
incorporates a global **positioning** system (GPS) **receiver** to  
provide a precise timing reference that is accurate to within I  
microsecond of international  
atomic clock standard time. The GSUcan be programmed to decode...

...contest-promoting system of the illustrative

embodiment comprises an integration of components, namely: a primary  
server 100; one or more web servers 110; a login **server** 120; a  
contestant **database** 1 30; a query/answer database 140; one or more  
game servers 1 50;  
and a plurality of client machines 160. As shown in FIG...

...server 1 5 0 is equipped with a

standard GPS receiver 170. As shown, the contest-promoting system of the  
illustrative embodiment employs a global **positioning** system  
comprising GPS **receivers** 170 operating in conjunction with an array  
of GPS satellites 1 8 0

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occupying a geodesic orbit in a manner well...physical connection. The  
topography of the primary  
virtual connections between the various contest system components are  
depicted in FIGS. 2A, 2B, and 2C, while the **information** flows  
**transmitted** through those connections are detailed in FIGS. 3A

through 3G.

Virtual Communication Links And Hierarchies In The Contest Promoting System Of The Present Invention

Typical...which then are each able to serve a large number of client machines 160. As shown, each of the web

servers 110 shares a common **networked** contestant **database** 130 which

contains registration and other information. In addition to providing the contest "web site", the web servers also distribute the contest client software

(340...the contestant interfaces with when logging in to through the login server. In order to check passwords and the status of the contestant, the login **server** accesses the contestant **database** 130.

the user downloading and running customized plug-in modules or stand-alone applications on his or computing system. Message 405 in FIG. 7A contains registration **information** being **transmitted** from the client

machine 160 to the web server 110. This information is encrypted using standard secure HT7P methods known in the art.

Page II...Relating The Operation Specified In Block C In Eig. 2

In FIGS. 9C1 and 9C2, the suboperations are shown for carrying out the method of **downloading** an encrypted auction **information** and start-time to the client machine indicated at Block C in FIG. 9.

As indicated at Block A in FIG. 9C1, sellers of items...network.

Modifications of and Extensions to The System of the Illustrative Embodiments

Although the illustrative embodiments of the global synchronization unit (GSU) utilize a global **positioning** system (GPS) **receiver** as a source of time and space data, the present invention contemplates the existence and possible value of current and future alternative means of obtaining...

along a predetermined course. The collected TS data can be remotely analyzed to determine the **performance** of the **athlete** in the competition

and determination of a winner.

Another application for the GSU-enabled network device of the present invention is to embed a GSU...function triggering data specifies the TS triggering coordinates at which said central processor is to (i) decrypt said encrypted input image into a decrypted image **data** set, and (ii) **transmit** said decrypted image **data** set through said data output port to said data output device for display, and upon said GPS receiver producing a TS-stamp data element representative of said TS triggering coordinates, said central processor automatically (i) decrypts said encrypted image data set into said decrypted image **data** set, and (ii) **transmits** said decrypted image **data** set through said data output port to said data output device for display.

26 The GSU of claim 18, wherein said data input port comprises hardware...function triggering data specifies the TS triggering coordinates at which said central processor is to (i) decrypt said encrypted input image into a decrypted image **data** set, and (ii) **transmit** said decrypted image **data** set through said host computer interface to said host computing device for display, and upon said GPS receiver producing a TS-stamp data element